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DEPARTMENT OF LABOUR
OTTAWA, CANADA

VOCATIONAL EDUCATION IN CANADA

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Ottawa

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VOCATIONAL EDUCATION IN CANADA

INTRODUCTION

As compared with the educational system as a whole, vocational education is a recent development in Canada, and was practically unheard of until the opening years of the twentieth century, when it made a humble and hesitating debut in the form of manual training. This was followed after a few years by a few technical schools in some of the larger cities.

Up to the time of World War I, the educational systems in Canada were designed to prepare people primarily for the professions, or secondarily for "white collar" jobs; this despite the fact that the census occupational figures for the last 50 years show that only about 5 per cent of the output of the schools would be employed professionally. Vocational education, in its earlier years, was looked on as the "poor relation", and in some quarters is still so regarded. The vocational schools were considered as the obvious place for those pupils who were the least bright. Furthermore, in many of the vocational schools, and particularly in the first two years, a substantial percentage of the syllabus was academic rather than practical. Little consideration was given to that large minority of the students whose interests might be described as non-academic and who would not fit into the course prescribed. Little effort was made to fit the course to the pupils' needs and aptitudes. Inevitably there was an exodus of students when they reached the age at which school attendance was no longer compulsory, usually in the second year of the course. While a certain amount of this wastage was undoubtedly due to economic or financial reasons it cannot all be ascribed to that cause; much of it was due to the type of instruction which they had been obliged to follow.

The result was that during the great depression years of the 1930's there were thousands of young people, representing the finished product of our educational systems, who could not find work. True it is that much of this unemployment was due to lack of jobs, but the even more tragic fact, made starkly clear when jobs were available, was that these young people had not enough technical or manipulative skill to fill them.

Fortunately, this picture has changed radically in many respects in the last twenty years; vocational education has been coming into its own. Commercial training, for years the preserve of the private business colleges, has been incorporated into the public school system to an ever-increasing extent. The rapid expansion of Canadian industry and its demand for workers with technical training has resulted in a correspondingly rapid expansion of vocational shop facilities across the country—although in some provinces this has not been the case until the last few years. There has also developed, on the part of the employers, a much greater appreciation of what vocational schools can do and of the value of the basic training there given, resulting in much closer co-operation between the schools and industry. Nearly all educationalists are agreed that it is not the function of the vocational school to turn out skilled mechanics, but rather to lay a broad and firm foundation of basic skills and related technical knowledge on which industry can build and develop whatever specialized skills are needed. At the same time industrialists have been surprised at the degree

of skill attained by those graduates of vocational schools who have specialized in training for a specific trade and where the major part of the school time has been spent in practical shop work.

While there has always been, and still is, a lack of unanimity as to what constitutes "Vocational" in education, there is broad agreement on the following points:

1. It does include both technical and practical training necessary to prepare for gainful employment, not only in industrial and commercial establishments, but also in the basic occupations of agriculture, forestry, fishing, mining, and last but not least, homemaking for girls.
2. Education is, or should be, more inclusive than mere training. The aim of vocational education is not to turn out mechanical robots, but young men and women with a well-rounded approach to what constitutes abundant life and living; citizens with an appreciation of their place in the community and realization of their responsibilities, as well as their privileges, whose individual aptitudes and abilities have been developed by their education so that they can take their proper place in the world's work and earn their daily bread.
3. There is not, or at least should not be, any conflict between the cultural and the practical in education; each is complementary to the other.

On looking over the reports of the Provincial Departments of Education for the past years, one cannot help but be struck and surprised by the following facts:

1. The scant attention paid to vocational education in very many of these reports.
2. The lack of adequate factual data on the extent and content of vocational education.
3. The lack of uniformity in compiling statistics and in defining the terms used.

It is in an effort to effect at least a partial correction of this situation that the present booklet is issued. It is based on information supplied, and forms filled in, by the Provincial Departments of Education. It is not intended to be an exhaustive or all comprehensive treatise on the subject.

HISTORY OF THE DEVELOPMENT OF TECHNICAL AND VOCATIONAL EDUCATION IN CANADA

This section is intended to supplement, not to duplicate, Bulletin No. 28 on the history of Vocational Education in Canada, issued by the Technical Education Branch of the Dominion Department of Labour in 1928, and which gave a summary of developments from the beginning up to 1928.

Suffice it to say that the first impetus to vocational education came from the philanthropy of Sir William MacDonald, who furnished the necessary funds to start manual training classes in all provinces about 1900, and brought instructors out from Great Britain for this purpose. These classes were started in the elementary schools, usually in grades VII and VIII. While manual training is not now considered to be "vocational" in the accepted sense of that term, these classes did at least represent a beginning.

Widespread interest and public support were shown for this new experiment in education. When the private funds were discontinued after a couple of years, manual training was incorporated into the regular educational system in most localities, and was continued at public expense.

It is clearer and more convenient to deal with the subsequent progress of vocational education by provinces, and short summaries are therefore given for each individual province. In reviewing these summaries, it is significant that each entry of the Dominion Government into the field of vocational education acted as a decided stimulus to it and greatly accelerated its expansion and development throughout the whole country. Another factor that has a marked effect on the expansion of vocational facilities is the difference in policy on the ownership and operation of vocational schools in different areas. In some provinces the schools are municipally owned, but draw provincial grants; i.e., New Brunswick, Saskatchewan, British Columbia. It is only in very recent years that provincially-owned and operated schools have been commenced in Ontario and Manitoba, where nearly all such schools are still municipal. In Quebec nearly all vocational schools are owned and operated by the Provincial Government. In Alberta there are both types—and in Prince Edward Island and Nova Scotia, up to 1948, there have been no daytime vocational schools.

Each system of ownership has its advantages and corresponding disadvantages. Provincial ownership permits of:

1. Central planning and control under the guidance of experts in the field.
2. A better distribution of schools to cover all areas, with training given to meet the conditions in each area.
3. The building of the school is not dependent on the financial resources of a municipality, and its operation is not a burden on the municipal tax rate. On the other hand, it does weaken the sense of local responsibility and is very apt to result in lessened community interest and support.

Either policy, of course, has the possibility of difficulties owing to the working of municipal or provincial politics.

DEVELOPMENT BY PROVINCES

Prince Edward Island

As there is little industrialization in Prince Edward Island, it is not surprising that vocational education has had but little attention there up to the last couple of years, although it is surprising that with its dependence on agriculture and fishing more has not been done in training its citizens for these basic occupations. Manual training began with MacDonald funds in 1900, but was not continued when this fund lapsed. Domestic science was taught at the Prince of Wales College in Charlottetown from 1908 to 1923, but was then discontinued owing to a combination of lack of funds and insufficient public interest and support.

In 1919 a Provincial Technical and Agricultural School was started in Charlottetown, to give two-year courses in agriculture and motor mechanics, and was financed with funds advanced by Dominion Legislation, i.e., the Agricultural Assistance Act of 1913, and the Technical Education Act of 1919. Vocational evening classes were commenced in 1921. This school was used for the rehabilitation training of veterans of World War I, but when this training was finished, the school closed in 1924, as interest flagged and funds were lacking. Commercial courses, however, were inaugurated in 1925 at the provincial Prince of Wales College, and have continued in operation ever since.

Apart from the above, and special short courses in home economics, carpentry and blacksmithing, under the Youth Training Agreement with the Dominion, vocational training as such was entirely lacking until the need arose for training veterans of World War II. This need coincided with the coming into operation of the Vocational Schools' Assistance Agreement with the Dominion Government, funds from which were used to build, in 1945-46, a vocational wing to the Prince of Wales College at an approximate cost of \$170,000. Up to February, 1948, this wing was used entirely for veterans training and carried on at Dominion expense.

In the early months of 1948, classes for civilians in bricklaying and plastering, carpentry, electricity, plumbing and sheet metal, farm mechanics and agriculture were commenced, and are being integrated with the general education program of the province. An annex to the vocational wing is being built in 1948 to provide additional accommodation.

Nova Scotia

Nova Scotia was among the pioneers in vocational education. The Truro Agricultural College was first established in 1885, as a School of Agriculture, and in 1891 manual training was commenced at Halifax and later at Wolfville and Turo in the higher grades of the elementary schools. Provincial evening classes for colliery workers were inaugurated in 1884 under the direction of the provincial Department of Mines, during the winter months of each year, to enable officials in coal mines to qualify for certificates of competency. These have been carried on ever since, but in 1907 were transferred to the provincial Department of Education. There has since been an expansion in the number of these classes held.

In 1907 an act was passed relating to technical education and in addition to establishing an Engineering College it also provided for three types of vocational classes: (1) Classes for coal miners; (2) Evening technical classes; (3) Short courses for those in industry. The first two were carried on in numerous municipalities through the province, and the latter were provided at the Nova

Scotia Technical School in Halifax in 1916. All these classes were, and still are, provincially operated and controlled.

In 1917 a system of provincial correspondence courses was begun and has since been greatly extended. Tuition fees are kept low, and most of the vocational courses are based on text books, and the papers are marked by a special staff of experts.

Under the funds of the Dominion Technical Education Act no new schools were opened owing to the financial situation in the province, but this assistance did enable the province to maintain and somewhat expand the existing system of evening classes and correspondence courses.

In 1934-5, part-time classes were commenced at the Technical College for a limited number of apprentices in industry. Under the terms of the Dominion Apprenticeship Agreement this training has been substantially expanded since 1945. The instruction in the classes deals mainly with trade principles, theory, and related technical subjects.

The Province of Nova Scotia has never favoured composite schools, so widely used in New Brunswick and the four Western Provinces. Apart from commercial work in high schools there is no full-time day instruction in vocational work. Under the stimulus of Dominion funds from the Vocational Schools' Assistance Agreement, the province, however, is entering on a very ambitious plan to build five fully equipped technical schools, to be administered by Regional Vocational Education Boards but financed by the Dominion, the province and the municipalities. The entrance requirements to these schools will be completion of grade IX or the ability to profit by the school program. Half the time will be spent in general educational subjects and half in practical shop work and related technical instruction. Tuition will be free, and transportation will be provided for persons residing at a distance. These schools will also be used for evening classes for employed persons, and for part-time classes for indentured apprentices for whose class training the Department of Education has assumed responsibility.

Plans and specifications have been prepared for three of these schools—Halifax, Yarmouth and Sydney. Work on the Halifax and Yarmouth schools has commenced; but plans for the Sydney school have been deferred for the present.

Technical education at university and secondary levels was administered under one branch till 1947 when the Nova Scotia Technical College came under a Board of Governors, and vocational education at the secondary school level was placed under a separate division of the Department of Education.

New Brunswick

As in most other provinces, the first move toward the vocational in education came in 1900, with the opening at Fredericton of a manual training class, financed by the MacDonald fund. The value of this type of education was fully realized, and as a result, when the MacDonald fund lapsed, about a dozen centres were opened in different parts of the province to carry on the work at public expense. There was no further development until 1917, when a provincial committee was appointed to survey technical education, and recommended that there should be pre-vocational classes in elementary grades VII and VIII, and vocational training for pupils over 14 years of age, in both day and evening classes, under special vocational committees.

Steps were taken to implement the recommendations of this committee, by passing the first Vocational Education Act 1918, replaced by a new Act in 1923.

A further impetus was given when Dominion financial assistance was made available under the Technical Education Act. However, the first day vocational school—the Carleton County School at Woodstock—was built by private funds and opened in 1919, with provision made for both day and evening classes. This school is still running and places special emphasis on vocational agriculture.

During the early part of the nineteen twenties, about half a dozen composite schools were opened, including those at Edmundston, Fredericton, McAdam, Newcastle and Campbellton. The policy has been definitely established in New Brunswick to make extensive use of regional composite schools, where, in the vocational wing, provision would be made for instruction in home economics and similar subjects for girls, commercial work, vocational agriculture and industrial classes, the nature of which would depend on the area in which the school is located, with special attention being given to farm mechanics and fishing.

In 1926 a splendid vocational school was established at Saint John. It is interesting to note that this school is one of the few publicly-owned schools in Canada where classes have been held in beauty culture and wireless operating for a good many years.

In 1918 a Vocational Board was established to administer the Vocational Education Act. It now consists of 9 members, composed of the Minister of Education, 3 provincial officials, and 5 other members representing farming, labour, employers and other interests.

As the schools in New Brunswick are all municipally-owned they charge a tuition fee to pupils in attendance who do not reside in the area supporting the school. The Provincial Government pays tuition rebates for all students sent to vocational schools on recommendation of the local school board. In 1946 over 650 were helped, with an expenditure of about \$12,000.

From 1928 to the opening of World War II there was no marked development, except an extension of vocational facilities in such schools as Moncton, Campbellton and Edmundston through the stimulus of the war emergency training. During the past few years, however, the Department of Education has embarked on a most ambitious plan to cover the whole province with composite regional high schools, to the number of about 50, if all present projects are realized. Of these, 5 are already operating, and 13 others are under way. The total outlay for building these 18 schools will be about \$2,200,000. Extensive additions are being made to the vocational schools at Bathurst, Moncton and Saint John. The additions to these three schools, as well as the cost of 5 of the regional schools, are being financed in part by Dominion funds furnished under the Vocational Schools' Assistance Agreement.

Since the passing of the Provincial Apprenticeship Act several years ago, the vocational section of the Department of Education has been asked by the Provincial Department of Labour to provide part-time class training for industrial apprentices. These are being carried on in the schools at Saint John, Moncton, Fredericton, Edmundston and Bathurst. The province has also decided to purchase the premises at Moncton, occupied for veterans training for the last three years, in order to establish a Provincial Technical Institute where advanced industrial training will be given and provision made for the training of apprentices, unemployed civilians and vocational teachers.

Some idea of the development in New Brunswick will be seen from the following figures:

In 1920—there was 1 vocational school;

In 1928—there were 2 vocational schools and 7 composite schools;

In 1948—there were 2 vocational schools and 23 composite schools; and when the regional composite schools are completed, this number will be more than doubled. The enrolment in vocational day classes in 1920 was 52; in 1946, 1,860. There has been an increase, though not quite so large, in the enrolment in evening classes from—1,434 in 1920, to 1,973 in 1946.

It should be pointed out that in a province like New Brunswick, where the economy is based on the primary industries of agriculture, fishing and lumbering, there is not the same need of many highly developed technical classes, as in a purely industrialized area. Consequently much of the vocational industrial training will be of a general nature, and some of it will be definitely exploratory and pre-vocational.

Quebec

The system of vocational training in Quebec differs very greatly from that in the other provinces, due largely to conditions which are local and peculiar to Quebec, and to the cultural background in that province. Apart from the State institutions, under the jurisdiction of eight different provincial departments, many schools have been set up and are carried on by private organizations, prominent among which are the schools and convents of the religious orders.

The responsibility for carrying on different types of vocational training in the province is divided among departments of the Provincial Government as follows:

<i>Department</i>	<i>Schools</i>
Agriculture	Dairy school, dating from 1892; eight agricultural orphanages; nine regional schools; six intermediate schools; three advanced schools. (All instructing in agriculture.)
Provincial Secretary	Household science in three advanced schools; thirty-four regional and sixty-two intermediate; intermediate commercial schools; two schools of fine arts; schools of music and drama; thirty-eight normal schools.
Game and Fisheries	Two schools for fishermen.
Trade and Commerce	Schools for the hotel and tourist trade.
Labour	Five apprenticeship centres and a rehabilitation centre for disabled workers.
Mines Department	Courses for prospectors and miners.
Lands and Forests	Schools for forest engineers, forest rangers and protection; lumber and saw mill industry.
Youth and Social Welfare.....	Responsible for the main part of vocational training including technical, specialized, and arts and crafts schools throughout the province.

History of Vocational Education

Vocational education dates from the very earliest days of New France. About 1668, there was a trade school at St. Joachim, founded by Laval to "help young men who had no religious calling to prepare their future", which taught carpentry, gilding, tailoring, etc., to which were added the fine arts of painting and sculpture. A somewhat similar school was started in Montreal by a religious

order and was authorized in 1699 by letters patent from the King of France. For a long time however, owing to the vicissitudes of colonial life, and later to the great disturbance resulting from the change of allegiance, vocational education was solely dependent upon the tradition built up, and the personal efforts of some individual craftsmen.

About 1860, the Seigneur of Joliette left funds to establish an industrial school there, and somewhat later, a Mechanics' Institute of English origin was founded in Montreal for evening classes, similar to those carried on by the Arts and Trades Council, which was incorporated in 1872. The provincial authorities, concerned about the training of young industrial workers, sanctioned the opening of trade schools in some cities, and by 1880, thirteen of these were functioning. However, in quite a few of them, artistic tendencies were given more attention than manual skill.

In 1897, an Act was passed to encourage municipalities to provide for public instruction and which promoted the establishment of technical schools and provided grants for the existing schools. These schools were then placed under the control of the Arts and Trades Council. Municipalities were reluctant to take advantage of this until 1907, when Government subsidies finally led to action. In 1906, under the control of the Protestant section of the Board of Education, the Commercial and Technical Institute was erected in Montreal, as a result of joint action of the Mechanics' Institute and the Canadian Manufacturers' Association. Both day and evening classes were given at that school.

It was really about 1911, that specialized training struck its stride in Quebec with the opening of technical schools in Montreal and Quebec City. These schools were commissioned to supply the manufacturers with trained production workers, experienced foremen, and highly skilled workers. Since then, specialized training has continued to develop at a pace which has been definitely accelerated within the last ten years. In 1911, a group of industrialists in Shawinigan Falls, founded the technical school there, which, with the help of the Government, opened its doors in the following year. The Three Rivers Technical School was opened in 1920, followed by the Hull Technical School in 1924.

In 1926, the technical schools added to their curricula an intermediate trade course lasting two years. In 1932, the scope of technical training was further enlarged; the course was lengthened to four years, including certain subjects of a general cultural and academic nature.

As the years went by, certain departments broke away from the technical schools, and finally were established as institutions of specialized training. In addition, a number of arts and crafts schools appeared throughout the province, the objective of which was not only to decentralize intermediate training, but also to prepare for the creation of new advanced schools in specialized training.

The School of Graphic Arts was thus formed in Montreal in 1942, by amalgamating former departments of the Montreal Technical School; printing originally opened in 1925, and book-binding in 1937. Likewise, the Provincial Paper-making School of Three Rivers started in 1923 as part of the Technical School, was permitted in 1944 to become an independent institution. The Department of Cabinet-making, opened in 1930 at the Montreal Technical School, developed into the present excellent Furniture School. The Montreal Automotive School was commenced in 1942 as an off-shoot of the Motor Mechanics Department of Montreal Tech. The Rimouski Marine School was founded in 1948. The St. Hyacinthe Textile Institute was opened in 1943, by adapting an arts and crafts school to technical training in the textile industries.

There are now over thirty-five arts and crafts schools in the province. In addition to the regular trades courses, a number of these schools give the training covered by the first two or three years of the Technical School courses. In September 1946, a school unique in Canada was opened in Montreal, the Central Arts and Crafts School, which provides thorough practical and theoretical training for numerous service and commercial occupations. All the above schools have been the responsibility of the Department of Youth and Social Welfare since its inauguration in 1946. Until that time, they had been the responsibility of the Provincial Secretary Department.

In 1946, the Correspondence Course Bureau was created to prepare and publish technical textbooks in the French language and draw up vocational correspondence courses. Since October 1947, all institutions of specialized training have been placed under the authority of the Director General of Studies, whose responsibility it is to co-ordinate specialized training throughout the province. This training comprises a number of auxiliary departments: the Correspondence Course Bureau; Inspection Department, Supervising Private Vocational Schools; Scientific and Industrial Publications; Printing Service; Bureau of Statistics, and Teacher Training.

The Youth Aid Service works in co-operation with Vocational Schools by its Guidance, Scholarships and Employment Departments. In 1948-49, nearly 4,000 bursaries were granted to university students, nurses-in-training and students in vocational schools. The Youth Aid Service also puts on popular courses for more than 6,000 students in the same year. Most of these were of fairly short duration, covering agriculture, homecraft and handicraft, fisheries, etc.

Under a plan set up in 1947, a few arts and craft schools, on account of their geographical situation, a larger number of students, or the particular character of their training, will ultimately become technical schools or will be included in the special schools group. Rimouski was given the status of a technical school in June 1948. Another activity of the Department of Youth and Social Welfare is the organization of trade shops and vocational training in the reform schools. This activity is being extended at the present time.

In the past few years, vocational education has made extraordinary progress in the Province of Quebec. From August 1, 1944, until April 1, 1949, for those schools under the Department of Youth and Social Welfare alone, over \$7,000,000 has been spent for the construction of new schools, the enlargement and improvement of existing schools. In almost every case, the Dominion contribution to these schools has been fifty per cent.

Ontario

Vocational Training in Ontario made its first appearance in 1891 when Toronto acquired a building and opened evening classes. This same school offered day courses in science, business, art and home economics, but had no shop equipment for industrial training. This school was the first of its kind in the Dominion. As in other provinces, manual training classes were established in the opening years of the century, but the first provision for real industrial training came in 1909 when Hamilton opened the Technical Arts School with suitably equipped shops. In 1910 a course in mining was opened in Sudbury.

The development of vocational education on a province-wide scale may be said to date from a report in 1910 by Dr. Seath, the Superintendent of Education, after a survey made in the U.S.A. and Europe. This report covered

the whole field in a most comprehensive way and included the following specific recommendations:

1. The extension of manual training and home economics for those under 14 years of age.
2. General industrial schools with classes in English, mathematics, science, shop work.
3. Technical high schools with courses of three to four years in specified trade work.
4. Evening vocational classes.
5. Vocational correspondence courses.
6. Schools for apprentices.
7. The appointment of a Provincial Director of Technical Education.
8. The establishment of a training college for technical teachers.
9. Adequate financial grants by the municipality and province and subsidies from the Dominion.

In the field of legislation, the Industrial Education Act of 1911 implemented many of these recommendations, and in 1913 the first Provincial Director of Technical Education was appointed. Progress was slow at first, as the public itself had to be educated to the need of technical training—and evening classes for employed adults was the first step.

In 1916 there were full-time technical schools in Toronto, Hamilton, London, Brantford and Sault Ste. Marie with a mining school at Sudbury. In 1918 the Haileybury School of Mines was opened.

In the earlier phases, the curricula in the technical schools were not fixed by provincial regulations but were determined by the local boards. As provincial grants came to play an increasingly important part in the financing of these schools, there developed, inevitably and desirably, provincial regulation of the standards and requirements which had to be strictly adhered to if provincial grants were to be earned. The result is that in Ontario today there is a much more clear-cut distinction between what is "vocational" and what is "non-vocational" or "pre-vocational", than in the majority of the other provinces. However, the principle originally established that the schools were to be municipal, and not provincial, has been followed up to recent years when Provincial Technical Institutes were inaugurated. One important and desirable feature strongly insisted on by the province is that in each municipality where there is a vocational school, it must be under the direction of a Vocational Advisory Committee, made up of representatives of employers and labour, together with members appointed by the local Board of Education. Schools with commercial departments giving a three-year course were recognized as vocational, for provincial grants, but about 1944 some 16 high schools providing commercial options, were transferred from the vocational to the academic category.

Many of the schools are of a composite nature and have commercial and academic, as well as technical sections. Two schools have vocational agricultural departments, but there are agricultural departments in 51 of the high schools. There is also the excellent Agricultural School at Kemptville, which is under the jurisdiction of the Provincial Department of Agriculture.

The curricula in all departments of the vocational schools include certain "core" subjects; such as, English, history, civics, science, mathematics which were made obligatory in 1933. Health education was added somewhat later.

The vocational courses cover home economics, art, commerce and industry. The first two years are exploratory in nature and seek to give a broad foundation during which the student selects the type of work in which he or she wishes to specialize in the last two years of the course.

From 1919 to 1929 there was a rapid expansion, due to an awakened public interest, with resultant support, and to the Dominion Technical Education Act with its subsidies. During this period 19 vocational schools benefited from subsidies under this Act, and 17 others received grants solely from the province. In legislation the Vocational Education Act of 1921 superseded the Industrial Education Act of 1911, but was revised in 1930 and again in 1937. In 1917 evening classes for the training of technical school teachers were opened in Toronto, Hamilton and London and in 1921 the first summer school for this same purpose was opened in Toronto. The year 1925 saw the opening of the full-time Training College for Technical Teachers in Hamilton, but in 1946 this was moved to Toronto and became part of the Ontario College of Education in the University of Toronto.

During this period, provincial grants to the municipalities for vocational schools increased from approximately \$140,000 in 1919 to over \$900,000 in 1929. In 1946 these grants had increased to over \$3,100,000. This was not due to an increase in the number of schools, but to a radical readjustment of the basis of the grants, under which the province assumed practically 50 per cent of the cost of vocational education.

In 1930 classes for apprentices in the building trades were organized in several technical schools for a two-month period in the winter. These have been carried on since that date, but the shops of the Ryerson Institute of Technology are now being established for this purpose and will provide for a great expansion in the numbers to be served. In recent years experiments in part-time training in industry have been carried on in technical schools in Hamilton and Toronto for senior pupils. Under this plan the pupils spend part time in the school and part time in industry.

From 1930 until 1948, there was little or no expansion, due chiefly to the depression of the 1930's and World War II. Even after its close, the building of new schools or substantial additions to existing ones, was held up owing to shortages of labour and materials. Plans now have been approved for the building of new technical schools in some localities and for very substantial additions to others.

The most recent development has been the opening of Provincial Technical Institutes operated by the Provincial Government, and assisted by Trade Advisory Committees. These provide advanced courses beyond the ordinary technical school level, as follows: Mining Institute, Haileybury, 1945; Textile Institute, Hamilton, 1947; Lakehead Institute for Mining and Forestry, Port Arthur, 1947; Ryerson Institute of Technology, Toronto, 1948. The latter will provide training for a variety of groups of trades, such as cooking, radio and electronics, horology, photography, metal trades, etc., in courses lasting from one to two years, as well as shorter courses for apprentices in the designated trades.

Some idea of the growth of vocational education in Ontario may be gathered from the following figures:

The number of day vocational schools in 1912 was 1; in 1919, 11; 1929, 47; 1946, 43 (not including 16 high schools with Commercial Departments).

The number of evening vocational schools in 1912 was 8; in 1919, 36; in 1929, 66; 1946, 41.

The number of vocational day teachers in 1919 was 155; in 1929, 999; in 1945-46, 1,470.

The number of day pupils enrolled in 1919 was 4,739; in 1929, 26,616; in 1946, 30,252.

The number of evening vocational pupils enrolled in 1919 was 16,733; in 1929, 41,593; in 1946, 37,807.

Expenditures for Vocational Education have been:

	1919	1929	1946
	\$	\$	\$
Provincial Grants	140,294	933,740	3,111,106
Net Municipal Expenditures	518,778	6,090,938	3,569,265

(Provincial Grants are based on the school year September to June, but Municipal Expenditures are for the calendar year.)

In 1945 a Royal Commission on education was appointed but its report has not yet been tabled. It is reasonable to expect that the recommendations of this Commission will result in further development and change.

Manitoba

The first attempt at vocational education in Manitoba was in 1899, when an experimental commercial course was started in Winnipeg. This was followed in 1909 by manual training classes in three elementary schools in Winnipeg, which were financed by the Macdonald fund. It was in 1910 that action was taken following the report of the Provincial Royal Commission on vocational education which recommended the provision of vocational training for the people of the province. As is often the case with Royal Commissions, the recommendations made were much more sweeping than their subsequent implementations. It did result, however, in the opening of St. John and Kelvin schools in Winnipeg in 1912. Both these schools are still functioning, and have some excellently equipped shops used for industrial arts training during the day, and classes for adults in the evening.

A modest beginning was made in evening class instruction about 1911, and these classes were very greatly expanded after 1920. Additional classes in commercial work and home economics were also opened. In the industrial or technical section, it is doubtful if the application of the phrase "vocational training" is justified, as most of the work covered is rather of a pre-vocational nature along the lines of industrial arts, but the facilities are also used for classes for persons employed as apprentices or journeymen. It is also striking that with an agricultural economy like Manitoba's, little has been done up until recently to provide vocational training on the secondary school level in agriculture and farm mechanics.

Development of vocational education received a great impetus from the Dominion Technical Education Act, but, even so, the Dominion funds allotted to Manitoba in 1919 had not been fully utilized by 1948. A system of vocational correspondence courses was organized in 1925 by the Department of Education, although no courses were actually prepared by the province itself. These were purchased either from private correspondence school organizations or from the Province of Alberta, and sold to Manitoba residents at a substantially reduced rate.

About 1941 the province bought the Ford Motor Building in Winnipeg, to be used as a provincial Technical Institute, but up to 1948, its facilities had been entirely occupied, first for war emergency training, and subsequently for the training of veterans, as well as apprentice training. It opened as a

civilian vocational institute in September, 1948, following extensive alterations. It is financed under the Vocational Schools' Assistance Agreement with the Dominion Government, and provides for bursaries to deserving students.

Part-time classes in the designated apprentice trades have been carried on under the direction of the Provincial Department of Education acting in co-operation with the Provincial Department of Labour. For the most part, these have been given in veterans' training centres, and financed jointly by the province and the Dominion.

The most recent developments include the erection of a composite school at Dauphin, with provision for vocational training in agriculture, home economics, and in commercial and industrial classes. In the same year the City of Winnipeg approved a by-law to build a large technical school at a cost of about \$2,000,000. Construction on this commenced in 1948. It will accommodate about 1,500 pupils and instruction will be given in home economics and related subjects for girls, commercial classes, needle trades, graphic arts, metal trades, building trades and other service occupations.

Plans have also been approved for the construction of regional composite schools. The province has been divided into 12 districts, with one of these schools in each district, including Brandon, Portage and Flin Flon. In the vocational wing of these schools instruction will be given in commercial and home economics' subjects, farm mechanics and certain other industrial occupations according to the area in which the school is located.

As will be seen from the above summary, there was little development between 1929 and 1945. However teacher-training classes were commenced in 1939. Also, 25 general shop and homemaking courses and a number of commercial courses were set up during the 15-year period. This foundational work has provided the basis for the present provincial program. If present plans are carried out, very substantial progress will be made in the next few years.

Saskatchewan

While Saskatchewan was still part of the North West Territories, Manual Training classes were started in Regina about 1901, and were financed by private funds furnished by Sir William Macdonald. In the following year there was held the first school for manual teacher training. Although manual training was discontinued after a few years, it was revived in 1909, and classes in household science were also opened.

For some years after 1905, when provincial status was obtained, the development of vocational training was slow, due to the necessity of organizing and opening many new school districts. Some courses in bookkeeping, however, were commenced, followed in 1910 by a full commercial course. About this time the Saskatchewan Educational Commission was appointed, and in its report of 1913 it recommended supplementing the educational courses offered by a scheme of industrial training suitable to the individual locality and, also, by more advanced work in household science for girls.

The trend in the development of vocational education has very properly been influenced by the fact that the basis of the provincial economy is agricultural rather than industrial. Consequently, stress has been placed on training for farm mechanics and household science rather than for industrial occupations. There has not been the same need for fully-equipped technical schools as in the more highly industrialized areas of the Dominion.

Under the impetus of the Dominion Agricultural Instruction Act of 1913, there was increasing interest in, and expansion of, agricultural education, both in the regular high schools and in special summer schools. The same was true of household science, training in which was given in 7 schools by 1916.

In 1918 a survey of education was made in the province, and the recommendations on vocational education included the following:

1. The extension of the existing provision for manual training and household science.
2. Modification of the regulations to allow greater vocational contacts.
3. Introduction of pre-vocational courses in grades 7 and 8.
4. Training of teachers for pre-vocational, manual training, and home economics classes.

This survey was followed by the Dominion Technical Education Act of 1919. In the first ten years of its operation, Saskatchewan was able to spend less than 20 per cent of the Dominion funds allotted, but an extension of time enabled the province to make full use of the Dominion money. The Provincial Vocational Education Act of 1920 provided for day and evening vocational classes, and these were commenced in about eight schools. At first, the evening class instruction attracted the larger enrolment. Under this Act three well-equipped technical colleges were built at Regina, Moose Jaw and Saskatoon in 1930 and 1931. These are still the only three technical schools in the province. They provide training in academic matriculation work, home economics, and commercial work, as well as in industrial classes.

A definite change in vocational education was made in 1944, when the curriculum was completely revised and extended. Further revisions have been made recently following recommendations put forth by the committee on technical education. A Supervisor of Technical Education was appointed in 1946. The training of technical teachers has been carried on by special summer courses in Moose Jaw and the University of Saskatchewan. Provision has now been made in the four-year course for the degree of "Bachelor of Education" for students to major in industrial arts. During the past two years the province has substantially increased its grants to municipalities for vocational schools, not only for the operating and maintenance costs, but also for capital expenditures for buildings and equipment. This is due, in part, to Dominion funds provided under the Vocational Schools' Assistance Agreement. (About 34 new composite schools or additions to existing schools are being built at many points throughout the province.) Each school will have a vocational wing to provide training for home economics and commercial work, as well as vocational subjects designed primarily for the training of farm mechanics. Substantial additions are planned for the technical schools in Saskatoon and Moose Jaw, and heavy purchases of capital equipment have been made by all schools. A system of bursaries enables deserving students from the local composite schools to obtain advanced training at one of the three large technical schools. A vocational agricultural course on the secondary school level, and lasting about five months, has been given at the University of Saskatchewan for a number of years, and is continuing.

While there has not been spectacular development in vocational education in Saskatchewan, there has been fairly steady and satisfactory expansion, in spite of the difficulties encountered during the drought years. In 1919 there were only 19 certificated vocational teachers. In 1929 the number had increased

to 42, and 1947 to 143. The total enrolment in industrial, home economics and commercial classes in 1919 was 1,389, and in 1947 the total enrolment in these classes was 2,997 in the four schools under the Vocational Education Act. Owing to differences in compilation of statistics at various periods, it is almost impossible to obtain strictly comparable figures.

Provincial grants to the municipalities for vocational schools in 1913 were about \$30,000. In 1946-47 provincial grants to the four schools under the Vocational Education Act were about \$101,000; and the total provincial expenditures for vocational education in the same year were over \$174,000.

Alberta

The story of vocational education in Alberta starts with manual training classes financed by the Macdonald foundation at the turn of the century when Alberta was still a part of the Northwest Territories. These were incorporated in the public system in the elementary schools and, after some years, extended to the lower grades in the secondary schools. Following World War I this work was greatly curtailed, chiefly for financial reasons. It was from the manual training that the inspiration came for the appointment of the first Provincial Director of Technical Education. This appointment, coupled with Dominion financial assistance under the Technical Education Act, stimulated a considerable expansion in the vocational field during the period 1919 to 1930. The Provincial Director of Technical Education retired in 1944 and since that time vocational education in the secondary schools has been supervised by the Supervisor of Home Economics, the Supervisor of Industrial Arts, and an Inspector of Schools having special training in Vocational Agriculture.

The School Grants Act, passed in 1919, provided grants for vocational teachers of approved qualifications, and grants to districts for approved equipment. This Act has been amended from time to time, but still forms the basis of the vocational education system of the province.

Vocational education in Alberta has a three-fold aspect: (1) The work organized and carried on by the local school boards, with grants from the Provincial Department. (2) The work carried on directly under the Department of Education at the Provincial Institute of Art and Technology. (3) The vocational agricultural instruction operated directly by the Department of Agriculture.

In the municipal schools, commercial classes were first started in Calgary in 1909, and in a short time were also established at Edmonton, Lethbridge and Medicine Hat, and have since spread to a number of other towns. It was not, however, until 1911 that technical day classes were inaugurated at Lethbridge and Calgary. In 1913 the Edmonton Technical School opened in temporary quarters, and in 1922 moved to the Market Building, where it carried on until 1943, when the School Board turned it over to Canadian Vocational Training for training under war emergency, and veterans' rehabilitation. In 1929, Calgary opened the Western Canada High School, a composite school, but with first-class commercial and technical departments and well-equipped shops. Recent developments include vocational classes in new municipal composite schools at Red Deer and Medicine Hat, utilizing premises formerly occupied for veterans' rehabilitation. A large composite school is being built at Edmonton, with a fully-equipped vocational wing, which is expected to open in 1949. Similar schools are under construction at Lethbridge and Calgary. All these schools

will provide for training in home economics and related work, commercial classes and technical shops.

A Royal Commission was appointed in 1914, and following its report, the Provincial Institute of Art and Technology was organized at Calgary in 1916. During the first few years it was used as a rehabilitation centre for veterans of World War I, but in 1921 it opened in new quarters as a Provincial Institute, with regular courses of two years duration in the fine and applied arts, and technical trades, including the first aeronautical school in Canada. It also carries courses of a shorter duration; and a wide range of evening classes have been given for over 25 years. Its other responsibilities include the provision of excellent vocational correspondence courses in mining and steam engineering, qualifying men to develop one of the major resources of the province—coal. Among its other functions, the facilities of the institute are used for training vocational teachers. During World War II, the premises were taken over by the R.C.A.F., and the institute had to operate for some years in temporary quarters at a great disadvantage. Since it has reoccupied its old home there has been steady progress and expansion in the shop accommodation, the equipment, and the enrolment of students.

Owing to the major importance of agriculture in the political economy, instruction in technical agriculture has always received serious consideration from the Provincial Government. In recent years a very promising beginning has been made in the introduction of courses in Vocational Agriculture into some of the high schools of the province, the best example being the work offered in the Red Deer Composite High School. For many years the Department of Agriculture has accepted a considerable responsibility for Vocational Agriculture by organizing and operating schools under its own auspices. Three of these schools were opened in 1913 and three others in 1920. But of these six schools, only those in Olds and Vermilion are still functioning. Two of the others were closed in 1922, and the remaining two in 1931. The experience of these schools has demonstrated that dormitories are essential for the successful operation of this type of school, which draws its pupils from a large area. At the present time the Provincial Department of Agriculture has under contemplation the erection of two new schools, one in the Peace River, and the other in one of the irrigated sections of the province. Instruction covers not only vocational agriculture of a theoretical and practical nature for boys, but also home economics and rural homecraft for girls.

Little use has been made of trade advisory committees in connection with vocational education, except in the case of apprentices registered in the designated trades under the Provincial Act, and for whose technical training the Department of Education is responsible.

British Columbia

The beginning of Vocational education in British Columbia was in 1885, with the opening of a few commercial classes. The next step was in 1900 when manual training was started in Victoria and Vancouver, with private funds from the Macdonald foundation. After two or three years, manual training was carried on at some of the municipal elementary schools at public expense, and in 1909 it was extended to the high schools. It was not until 1909 that a start was made in what might be called Vocational Training proper. This began in evening classes in some of the Vancouver schools. In 1910 provision was made for Provincial grants for the purchase of equipment.

When the Royal Commission on Technical Education visited the province they found "that the Government had done nothing to establish technical education in British Columbia, although there was a growing demand for this type of work".

Considerable expansion took place in the next few years in the evening classes, and in 1914 a Provincial Director of Technical Education was appointed. The beginning of technical education in the daytime came in 1916 with the opening of a small unit in the King Edward High School at Vancouver, which by 1921 resulted in the establishment of a separate technical high school. In the latter year technical training was also commenced in New Westminster and Victoria. Industrial arts classes were started in the junior and senior high schools in 1927.

The provision of Dominion funds, under the Technical Education Act, acted as a great stimulus, resulting in the opening of many additional day and evening classes. It was in 1928 that the present technical school was built in Vancouver, and twenty years later a Vocational Institute is being built in that city, assisted by Dominion and Provincial funds furnished through the Vocational Schools' Assistance Agreement.

The first provision for training vocational teachers was in 1917, when a summer school was commenced by the Department of Education. Since that time many industrial tradesmen have been qualified as instructors by their attendance at numerous summer courses. Over twenty years ago the Provincial Department made a beginning in vocational correspondence courses with a course for miners. There has been a great expansion in this particular field, and British Columbia is one of the few provinces in the Dominion offering a wide range of carefully prepared vocational correspondence courses at a very low price. There are at present thirty such courses in use, being followed by over 2,400 students.

British Columbia has adhered strictly to the policy of having all schools municipally-owned, but supported, in part, by provincial grants. Vocational education is included under the regulations of the Public Schools' Act which was first passed in 1911, but was repealed in 1936 when a later Act was passed. This, in turn, has been amended on several occasions and consolidated in 1947.

Following the submission of the Cameron report, the basis of the grants to municipalities has been drastically altered and very substantially increased for the most part. Owing to the different methods followed in compiling statistics of enrolments, and owing to the changes, from time to time, in what has been considered technical or vocational training, it is impossible to show figures that are strictly comparable for different periods. Some idea of the expansion in vocational education can be obtained, however, from the following:

In 1919, provincial expenditures for vocational education were \$38,815; in 1927-28, they were \$118,711, of which amount the Dominion refunded 50 per cent under the Technical Education Act; in 1947-48, they were \$398,849, of which the Dominion refunded \$170,035 under the Vocational Schools Assistance Agreement. In 1909, there were 966 students enrolled in evening vocational classes; in 1914, there were 1,800; in 1947-48, there were 4,121. In vocational day schools in 1914, there were 975 pupils; in 1947-48 there were 3,512. The number of vocational teachers in 1920 was 48; in 1929, 227; 1947, 419 (full and part time). In 1947, there were 38 day schools giving vocational training, but, for the most part, this consisted of commercial training, as only about a half-dozen of these schools had industrial or technical classes.

In addition to the above, the Vocational Branch of the Department of Education is providing technical class training in related subjects to apprentices, under the Provincial Apprentice Act. It is also carrying on the school of Navigation in Vancouver, with a yearly enrolment of over 200.

DOMINION ASSISTANCE TO VOCATIONAL TRAINING

Background of Dominion Participation

Vocational training, as part of the educational system, is, by the constitution, under the jurisdiction of the provinces, and provincial autonomy in this field is jealously guarded. At the same time, it must be asserted that the provinces have never objected to the Dominion entering the field with financial assistance, if such did not involve Dominion control or undue interference with provincial rights. Yet the fact remains that on many occasions in the past thirty-five years the Dominion has passed legislation dealing with vocational education.

This was no doubt due to the recognition that training and education have a national, as well as a provincial or local aspect, and that Dominion participation was justified for the following reasons:

(1) It is the responsibility of the Dominion Government to ensure that the nation's industries have an adequate supply of skilled workers, if national output is to be maintained and increased, either in primary or secondary industries. This is particularly true in times of emergency, as was demonstrated during the last war when national safety depended, in part, on the training in tremendously increased numbers of tradesmen for the armed forces, and workers for industries engaged in war production.

(2) The Dominion Government is interested in ensuring equality of opportunity in the educational field for all its citizens, regardless of the province in which they live. This equality has been woefully lacking in some provinces, and, in the majority of the smaller towns, in all provinces where adequate facilities for vocational education have not been established.

(3) Vocational training, owing to its very nature, is much more expensive to inaugurate and to carry on than academic education. Not only does it require class-rooms, but also adequate shop space and machine tools and equipment, much of it expensive. Furthermore, if the vocational schools are to accomplish the purpose for which they were intended, and to meet the needs of industry by keeping pace with its modern trends and developments, this equipment must be renewed, or even replaced by new items, as, and when, it becomes obsolete. The result has been that vocational training facilities have not been set up in many areas on an adequate basis and, in fact, in some provinces have almost been entirely lacking. This is due, in part, to the lack of financial resources in a province or municipality, but also, in part, to a lack of interest or recognition of the importance of vocational training in the education system.

The Dominion Government first showed its interest in this field in 1910, by the appointment of a Royal Commission which filed its report in 1913, making recommendations for a policy of development to provide a complete system of vocational education in secondary schools throughout Canada accompanied with provincial control, but with provision for Dominion, provincial and municipal contributions. It suggested the establishment of full daytime vocational and technical schools with evening classes and correspondence courses for those already employed. As a Dominion contribution, it recommended \$3,000,000

per annum for a period of ten years, to be used for vocational teachers' salaries, equipment, bursaries, and for the establishment and maintenance of schools and classes. The outbreak of World War I delayed carrying out these recommendations, except in the field of agricultural training, for which Dominion Legislation was passed in 1913. From that date until the present, the following Dominion acts dealing with vocational education have been passed:

- 1913—Agricultural Instruction Act.
- 1919—Technical Education Act.
- 1931—Vocational Education Act.
- 1939—Youth Training Act.
- 1942—Vocational Training Co-Ordination Act.

Accomplishments under the Dominion Acts

(1) *The Agricultural Assistance Act* passed in 1913 provided \$10,000,000 in Dominion funds to be spent over a ten-year period to promote agriculture and agricultural instruction. In 1923, it was extended for a further year to enable some of the provinces to take full advantage of Dominion assistance. There was no provision in the act for the provinces sharing in the cost, nor for Dominion supervision over the nature of the program carried out, and the expenditures incurred. There was nothing specific as to what type of projects could be put forward for the Dominion funds which were paid to the provincial Departments of Agriculture. Some of the provinces found it difficult to develop genuine agricultural instructional projects. The accomplishments were of a very miscellaneous nature and included construction and operation of agricultural schools; such as, Olds and Vermilion in Alberta, agricultural surveys and demonstrations, boys' and girls' agricultural clubs, experimental plots, etc. With the termination of Dominion funds, much of the work was discontinued, and it is very doubtful if worthwhile permanent results were obtained for much of the money spent.

(2) *The Technical Education Act*—1919 appropriated \$10,000,000 to be spent over a ten-year period ending March 31, 1929, under agreements with each province, on condition that the province spent an amount equal to that of the Dominion. Ten thousand dollars was allotted to each province each year, and the balance of the annual allotment was divided among the provinces in accordance with their population. The purpose of the act was to promote and assist technical education, which was taken to mean any form of vocational, technical or industrial education, or instruction, approved by agreement as necessary, or desirable, to aid in promoting industrial and mechanical trades and to increase the efficiency of those employed therein.

As Ontario was the only province which had earned its full allotment by 1929, the act was extended for a further period of five years up to March 31, 1934, with further periodic extensions given since that date. By 1937 every province but Manitoba had been able to earn its full grant, and the act has been extended annually up to 1948, exclusively for the benefit of Manitoba.

The agreements under this act excluded from its operation—

- (a) Students under fourteen years of age.
- (b) Courses of college grade.
- (c) Institutions owned by religious orders, or by private corporations or individuals.

- (d) Agricultural instruction as assisted under the Agricultural Instruction Act.
- (e) Manual training.
- (f) Elementary schools.

The following payments were permissible:

- (i) The rental or purchase of lands, buildings and equipment.
- (ii) Maintenance of plant and equipment.
- (iii) Provincial administration costs for vocational education.
- (iv) Salaries of vocational teachers.
- (v) The training of vocational teachers.

The act was designed to promote the following types of work, all on the secondary school level—Industrial and technical courses, commercial courses home economics courses, applied arts, pre-vocational courses of two or more years commencing not earlier than the seventh grade, part-time or continuation classes, evening classes, special short courses in industry and for apprentices, foremen's courses, correspondence courses, and the training of vocational teachers.

Quarterly statements of expenditures were submitted by each province to the Dominion Department of Labour which was charged with the administration of the act through its Technical Education Branch. The department did not attempt to exercise any administrative control over vocational education, but was responsible for seeing that Dominion funds were spent only for the purpose for which they were authorized. Every effort was made to assist provinces or municipalities in developing vocational educational programs, but only where advice and help in such matters were requested.

Under this act many of the existing technical and vocational schools were built. With the outbreak of World War II, shops in these schools were available to meet the war needs of industry and the armed forces and were placed at the disposal of the Dominion Government free of charge for training purposes. Thus, the Dominion reaped the benefit of the investments it made in vocational education from 1919 to 1934. An idea of the progress made in vocational education under this act is given in the following figures:

	Schools	Vocational Teachers	Pupils
<i>1919</i>			
Day Classes	32	384	8,512
Evening Classes	97	1,423	51,827
<i>1929</i>			
Day Classes	89	1,694	45,617
Evening Classes	192	2,666	73,877

The enrolment shown in the evening classes contained many duplicate enrolments. For example, there are instances where the same person had enrolled for two or three classes. Similarly, it is doubtful if the training given in some of these day school classes could now be considered as really vocational. A certain amount was what might be called general or elementary training in industrial arts, including home economics. The following table gives the amount of Dominion funds available for each province:

<i>Province</i>	<i>Amount Available During Period of Act</i>
Prince Edward Island	\$ 198,187 86
Nova Scotia	662,113 94
New Brunswick	512,461 28
Quebec	2,569,655 53
Ontario	3,178,608 97
Manitoba	719,746 56
Saskatchewan	847,620 91
Alberta	678,524 40
British Columbia	633,080 55
	<hr/>
	\$ 10,000,000 00

By 1929, Ontario was the only province which had spent its full allotment. By 1937, all the other provinces except Manitoba had made full use of their share, but Manitoba still had an unexpended balance of about \$29,000 in Dominion funds, as of March 31, 1948.

(3) *Vocational Education Act* was assented to on August 3, 1931, and set aside \$750,000 per annum for fifteen years for payments to the provinces for promoting and assisting vocational education, conditional on agreements being made with each province governing the terms and the purposes for which funds were to be spent. This annual allotment was divided among the provinces according to their population at the last decennial census. Vocational education was not defined in the act itself. Neither was there any stipulation about the provinces matching Dominion expenditures. The act was never operative and no funds were spent under it. It was repealed in 1942 by Clause 13 of the Vocational Training Co-ordination Act.

(4) *The Youth Training Act* was passed in May of 1939, and was one of the few Dominion acts signed personally by His Majesty the King during the Royal visit to Canada. The purpose of the act was to promote and assist in training unemployed young people to fit them for gainful employment. It replaced an annual allotment of \$1,000,000 made for similar purposes in 1937 and 1938 under the authority of the Agricultural and Unemployment Relief Act. Unemployed young people were defined as those between sixteen and thirty years of age, not gainfully employed, and whose families were not in a position to pay the full cost of their training, and who were registered with the Employment Service or certified as eligible by an appropriate provincial authority, or who were deserving transients.

It appropriated \$1,500,000 per annum for three years spent under agreements with each province, provided the province made expenditures of at least equal amount and provided all training projects submitted by the province were approved by the Dominion Minister of Labour for contribution. The distribution among the provinces was made by the Governor General in Council, but not necessarily in proportion to the provincial population.

This type of vocational training has been operative in all provinces, but on a greatly reduced scale after 1940. From 1937 to March 31, 1948, the total Dominion payments to the provinces under it have been over \$5,300,000, and the total enrolments over 293,000, of whom over 14,000 were students at universities, or nurses-in-training at hospitals, to whom assistance was given by grant or loan. Youth training was originally designed as an aid to young people in depression times, to maintain their morale during periods of unemployment and to ensure the development of occupational skills, which would enable

the trainees to take and hold jobs when opportunities became available. As a rule, the classes were carried on in local communities. Sometimes this was in the regular vocational schools, but more frequently it was in specially established centres. A wide range of training was offered to rural young men and women in general and specialized agricultural subjects, rural homecraft and handicrafts, egg and poultry grading, farm mechanics, horticulture, etc. Practical and technical training was also given in forestry, prospecting and mining, as well as occupational classes in home service, practical nursing, dressmaking, and the regular standard trade classes for men in blacksmithing, welding, woodworking, machine shop, radio, electricity, sheet metal, motor mechanics, etc.

In Alberta and British Columbia there were very heavy enrolments in physical recreational classes and to a lesser extent in Saskatchewan and Manitoba also. This type of training was transferred to the jurisdiction of the Department of Health and National Welfare when a National Fitness Act was passed.

(5) *The Vocational Training Co-Ordination Act.* The latest Dominion legislation in the field of vocational education is the Vocational Training Co-Ordination Act assented to on August 1, 1942, and Clause 3(1)(c) of which was subsequently amended in 1948. This act had no fixed duration and no specific sums were mentioned. It was an enabling act, designed to provide authority for whatever types of vocational training might be necessary or desirable, either during the war or in the post-war period; with a representative committee appointed to advise the Minister in connection with the administration of the act and the programs carried on under it.

The act authorized the Minister of Labour to undertake solely at Dominion expense, training of types for which the Dominion was responsible; such as, the training of workers for war industry, tradesmen for the armed forces and discharged veterans approved for training by the Department of Veterans Affairs. It also authorized him, on the approval of the Governor General in Council, to enter into an agreement covering any period, with any province, to provide financial assistance for:

- (a) Continuation of projects formerly carried on under the Youth Training Agreement.
- (b) Vocational training projects for the conservation and development of natural resources.
- (c) Training of industrial apprentices and supervisors.
- (d) The development of vocational training at a level equivalent to secondary school level.
- (e) The training of unemployed civilians who had been previously gainfully employed, (provided that the Dominion expenditures for these five types of training were matched by provincial expenditures of equal amount).

As a matter of record, both the training of veterans and the training of war workers and service tradesmen were also carried on under agreement with the provinces, but with the Dominion paying all the costs.

Under this act several different agreements have been made, from time to time, to provide for the different types of training as follows:

- (i) War emergency training, (ii) Apprentice training, (iii) The training of veterans, (iv) Dominion assistance to vocational schools.

The objectives and accomplishments under these agreements may be summarized as follows:

War Emergency Training Agreement. This was actually started in a tentative way in the early summer of 1940 as an expansion of the Youth Training Agreement, but was fully developed at the beginning of 1941 under the War Emergency Training Agreement. It was operated in all provinces except Prince Edward Island, and covered the period 1940-45. Approved expenditures under the Agreement were all borne 100 per cent by the Dominion Government.

The objective of this agreement was to provide whatever vocational training was needed in connection with the war and might be divided into two groups, the first for the training of tradesmen for the Navy, Army and Air Force; and the second for the training of workers to be employed in industries engaged in war production. Extensive use was made of the shops in the regular provincial and municipal vocational schools, but special centres also were established in the Provinces of Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia. Most excellent co-operation was given, both by Provincial Governments and the municipal authorities.

In training tradesmen for the armed forces, all those trained were enlisted personnel and were selected for training by each branch of the forces concerned. The normal length of training given was about three months for the Army, four months for the R.C.A.F., and four to eight months for the Navy. Close liaison was maintained between the training program and the military authorities, who prescribed the type of syllabus to be followed. The following trades were taught for the Army:

Blacksmiths, bricklayers, carpenters, clerks, cooks, coppersmiths, draftsmen, electricians, fitters, instrument makers, motor and driver mechanics, plumbers, radio mechanics, tinsmiths, welders.

For the R.C.A.F., training was given to the following:

Air engine mechanics, air-frame mechanics, radio mechanics, clerks, wireless operators ground, wireless electrical mechanics, electricians instrument mechanics, carpenters, metal workers.

There were subsequently added special pre-aircrew classes for potential aircrew personnel who lacked the necessary academic standing, particularly in mathematics and science. Remarkable results were obtained in bringing these men up to approximately matriculation standard in the course of a few months' training and was the forerunner of the prematriculation classes later carried on for discharged members of the forces. The training for the Navy was on a somewhat smaller scale, but with longer courses for engine-room artificers, motor fitters, radio mechanics.

Training for the workers in war industries was given in a variety of ways, including part-time classes, mostly in related technical instruction for workers already employed in such industries who were referred for special training by their employers. Training was also provided in what were called "plant schools". These were carried on right in the industry with trainees selected by the employer with the training program paying salaries of instructors and a certain weekly allowance to the trainees. Their usual duration was three months. Short intensive full-time courses of a pre-employment nature, lasting usually from two weeks to three months, were given in all provinces except Prince Edward Island. In some cases whole classes were sponsored by a prospective employer and in other cases the trainees were recruited by the training program from suitable applicants. All trainees were paid weekly allowances ranging from a few dollars a week in the early stages up to eighteen dollars a week for heads of families taking training away from home. These classes demonstrated what could be done in a short time in a purely vocational course with good practical

instructors and a carefully prepared syllabus. They promoted a much closer degree of co-operation between industry and the vocational schools which is bound to be beneficial for the continuing education program in the different provinces. They also made it obvious that there is a place in the regular educational system for short practical occupational courses for students of a non-academic type who have not found themselves at home in the more general type of training given in the first years of the vocational schools.

The Apprenticeship Agreement. This came into operation on April 1, 1944, and covers a ten-year period. Agreements of this kind are in effect in all provinces except Prince Edward Island and Quebec. The agreement was designed to promote the training of apprentices in trades designated under Provincial Apprenticeship Acts, by Dominion contributions of 50 per cent of the approved costs of training, either in full-time or part-time classes.

One immediate result of the agreement was the passing of Apprenticeship Acts in New Brunswick, Manitoba, Saskatchewan and Alberta. The agreement laid down certain standards and conditions on which Dominion payments would be made. These have been met in all provinces. In the Provincial Governments there was co-operation between the Departments of Labour and Education, the former being responsible for the general standards and regulations of apprentice training, for the indentureship of the apprentice, and everything pertaining to his training while working with an employer; the Vocational Branch of the Provincial Departments of Education was responsible for the drawing up of suitable courses for full-time or part-time instruction to meet the needs of each particular trade, for the provision of training facilities, and the engaging of competent instructors. The training given in the part-time classes was mostly of a theoretical nature, or instruction in related technical subjects. These were usually held on two afternoons or two evenings a week for about six months in the year. The training in full-time classes, which lasted from one to three months each year, included both technical instruction and practical work. Weekly allowances were paid to trainees during their period of attendance in these classes. Extensive use has been made of trade advisory committees. The program has served to increase the co-operation between the employers, unions and the vocational schools. In 1948 provision was made for the Dominion sharing in the salaries of field supervisors for apprentices while working on the job with employers.

Re-establishment Training Agreement. The main activity under this agreement was the training of discharged members of the forces who were eligible for training under current Dominion Legislation and who were referred for training by the Department of Veterans Affairs, with 100 per cent of the approved costs being paid by the Dominion. Training began in a very small way about 1942 with the enrolment reaching its peak in the early summer of 1946. A steady decline in enrolments commenced in the fall of that same year and the training of veterans was practically completed by the end of 1948. In providing this training, use was made of about one hundred private trade schools and two hundred privately-owned business colleges, with the Department of Veterans Affairs paying the tuition fees charged. Accommodation was also obtained for veterans in about sixty provincially or municipally-owned schools, and in addition to this about seventy-five special veterans' training centres were opened in all provinces. Certain use was also made of vocational correspondence courses and substantial numbers of veterans were trained on-the-job by employers in industry. The length of such training was determined in the light of the com-

plexity of the occupation to be learned, the previous experience and adaptability of the individual trainee. An agreed-on percentage of the wage to be paid the trainee by the employer was refunded to the employer by the Dominion. As the value of the trainee's services to the employer increased, this percentage decreased, and the percentage of wage borne by the employer proportionately increased.

A regional administration was set up in each province. The general policy governing training was determined in Ottawa, but wide discretion was allowed in each province to vary the details in order to meet local conditions. The special training centres established consisted, for the most part, of former Army and R.C.A.F. stations. Courses lasted from four months to two years, the average length being about six to eight months. Vocational classes were held for about one hundred occupations, many of which marked the first time training under public auspices was available in Canada for such occupations. It is significant that a substantial number of these trade classes are now being incorporated in the regular provincial system of vocational education and will be continued.

Pre-matriculation schools were also established with splendid co-operation of the Provincial Departments of Education. These provided a stream-lined course to bring the veterans up to the university entrance requirements. Courses lasted from six to twelve months and remarkable results were achieved. The university authorities agreed to accept the result of examinations set by the schools and so did away with the necessity for the veterans trying a formal matriculation examination. This experiment was watched with a great deal of interest by educationalists throughout the country, and it appeared to point out a lesson which might profitably be adopted in future provincial educational policies.

Not only did this program help to rehabilitate over 134,000 veterans, but it has also made contributions of permanent value to the educational system. It carried still further the value of intensive trade courses as demonstrated by the experiment of war emergency training. The use of advisory committees of employers, and the satisfaction of employers with the type of training given, has very definitely increased the interest in vocational training and the vocational schools, on the part of industrialists throughout the country. Furthermore, the agreement provided that any equipment bought for the training of the veterans could be acquired by the province for its own vocational use by refunding 50 per cent of the initial purchase cost. In some cases excellent buildings for vocational purposes were obtained on the same basis by the province for permanent use.

Training of Unemployed Civilians. In view of a possible dislocation of employment immediately following the end of the war, provision was made under the Re-establishment Training Agreement to provide vocational training for workers previously gainfully employed who had been released from such employment. This was designed originally as an emergency measure and about three-quarters of the approved costs were to be paid by the Dominion, the remaining quarter by the province. Fortunately, the changeover from a wartime to a peace-time economy was so smoothly effected that little unemployment resulted, and practically no use was made of this type of vocational training.

Under the new Vocational Training Agreement, effective from April 1, 1948, the arrangements governing this last type of training were altered to bring it into line with the normal co-operative training programs carried on between the Dominion and Provincial Governments. The approved costs were to be shared

equally; selection of trainees was to be made by representatives of the province and the National Employment Service, from persons, male or female over sixteen years of age who had been previously gainfully employed, though not necessarily in insurable employment under the Unemployment Insurance Commission, but, who, for one reason or another, had become unemployed. The province was to control the starting and operation of all classes and the normal length of the training course is six months. Use is being made of committees to advise the province on what types of classes should be started and the approximate numbers to be trained. Training under this agreement will not duplicate training for trades designated under Provincial Apprenticeship Acts.

Vocational Schools' Assistance Agreement. The Vocational Training Advisory Council, established under the Vocational Training Co-ordination Act, at its meetings in 1943 and 1944 gave very careful consideration to a plan of Dominion financial assistance to the provinces for vocational schools and made specific recommendations to the Dominion Minister of Labour. These recommendations were adopted in a modified form and in March, 1945, an Order in Council was passed authorizing an agreement for a ten-year period covering Dominion financial assistance to the provinces for vocational training on the secondary school level. Agreements were soon completed with all provinces and made effective from April 1, 1945. Subsequently, amendments were made to certain clauses of this agreement. Broadly speaking, it provided the following Dominion funds:

(1) An outright grant of \$10,000 to each province which does not need to be matched by provincial expenditures.

(2) Each year for ten years the sum of \$1,910,000 is divided among the provinces in proportion to the numbers of their population in the age group 15-19.

(3) A special allotment of \$10,000,000 to be used for capital expenditures to be used for vocational school buildings and equipment, of which at least 25 per cent must be for capital equipment. This was allotted among the provinces on the same basis as the annual allotment, but to qualify for Dominion contributions, provincial expenditures must be made for buildings and equipment prior to March 31, 1952. It was further specified that Dominion contributions to the annual allotment and the special capital allotment must be matched by provincial expenditures of equal amount.

The following types of expenditures were excluded from Dominion contribution:

- (1) Courses of university grade.
- (2) Manual training and pre-vocational classes.
- (3) Classes below Grade IX.

To count as vocational for a Dominion contribution, 50 per cent of the time in class must be spent in vocational subjects and related technical subjects, such as science, mathematics and drafting. No Dominion contributions are payable for the purchase of land or for clerical, caretaking or maintenance staff in schools, but they are payable for vocational school buildings and equipment (either capital or expendable), salaries of vocational teachers, provincial administration of vocational educational staff, vocational guidance, the training of vocational teachers, vocational correspondence courses and bursaries to vocational students. Agriculture, home economics and commercial classes are considered as vocational training if 50 per cent of the time is spent on the vocational

subjects. The Dominion contribution to the operating costs of provincial schools is restricted to the increase in provincial expenditures each year over a twelve-month basic period prior to the agreement. This basic period for most provinces is the fiscal year 1944-45.

The Dominion annual allotment for general operating costs (part of which may be used for capital expenditures at the discretion of the province) is now being fully taken up in Prince Edward Island, New Brunswick, Quebec, Ontario, Alberta and British Columbia. It is being used largely for the salaries of vocational teachers, expendable items of equipment and vocational supplies for the schools, and provincial administrative costs. Saskatchewan is using a small amount for bursaries to students and Quebec is making substantial payments for this purpose. Very little has been used for the training of vocational teachers, although this is one of the greatest immediate needs in vocational training in most provinces in Canada. All provinces except Ontario have designated a percentage of the annual allotment (varying from 10 per cent to 50 per cent) which may be used for capital expenditures for buildings and equipment. Any part of this percentage unexpended in the fiscal year for which it was allotted can be carried over into the next ensuing fiscal year, but must be used then or the amount lapses. The province makes submissions to the Minister of Labour for those projects for which it wishes Dominion contribution. If approved by the Minister, provincial claims are then paid. In the case of submissions asking for Dominion payment from the special capital allotment for buildings and equipment, Dominion approval had to be given prior to March 31, 1948. Projects for these capital expenditures have been approved up to the full amount of Dominion funds allotted for that purpose in all provinces except Ontario.

One immediate result of this agreement has been a very great increase in the number of plans submitted for new vocational schools or additions to existing ones. The allotments to each province, and the amount of Dominion claims paid up to the present are shown in Tables No. 2 and 3. Many of the schools which are being built in the smaller towns are of a composite nature and in addition to commercial, home economics, and in some cases agricultural instruction, they are providing technical instruction and reasonably well equipped shops designed to a large extent for farm mechanics. Altogether, Dominion contributions have been approved, either outright or conditionally, for about one hundred and five schools, of which approximately fifty are of a composite nature. The location of these schools, is given in another section.

ORGANIZATION OF VOCATIONAL EDUCATION IN CANADA

Each province was given jurisdiction over education by the Canadian Constitution with the result that a number of different types of vocational organizations have developed. These may be classified on the basis of ownership as follows:

1. The province owns and operates vocational schools.
2. The province has both provincially-owned and municipally-owned vocational schools.
3. The province and the municipalities own the vocational schools jointly.
4. The province has only municipally-owned vocational schools.

Prince Edward Island

The vocational facilities in Prince Edward Island which, at present, consist of the vocational wing and annex to the Prince of Wales College are owned,

administered and financed by the Provincial Government. Further expansion, which is under consideration, will be composite high schools with some type of vocational facilities in each. Present legislation provides that these schools will be municipally-owned, with the Provincial Government giving some financial assistance.

Nova Scotia

The vocational schools under construction or planned will be owned jointly by the Provincial Government and the municipalities and held in trust by the Provincial Government for the municipalities. These schools are administered by Regional Boards, with the cost of operation borne chiefly by the Provincial Government.

New Brunswick

Until recently the vocational schools were all municipally-owned and administered, with the Provincial Government giving financial assistance by way of grants for buildings, equipment and operational costs. In September, 1948, the Canadian Vocational Training School at Moncton was taken over by the Provincial Government and is being operated as a provincial technical institute.

Quebec

In Quebec, the technical, arts and trade and specialized schools are provincially-owned, operated and financed, with some exceptions, where schools were either started or are being operated by local corporations under provincial supervision. These schools are planned and located to best serve the needs of the youth of the province. In some centres where the technical schools are located the Provincial Government receives a grant from the municipality.

Ontario

The Provincial Government owns and operates a number of specialized schools or institutes: namely, the Provincial Institute of Mining, Haileybury; Provincial Institute of Textiles, Hamilton; Lakehead Technical Institute, Port Arthur; Ryerson Institute of Technology, Toronto; Forest Ranger School, Dorset; Agricultural School, Kemptville. The other vocational facilities of the province administered under the Vocational Educational Act are municipally-owned and controlled. They are assisted financially by provincial grants.

Manitoba

Both the Provincial Government and the municipalities are in the field of vocational education in Manitoba. The provincially-owned Manitoba Technical Institute in Winnipeg was opened in October, 1948. The other vocational facilities in the province are municipally-owned and operated. The Provincial Government assists the municipalities financially to operate the schools.

Saskatchewan

Other than the School of Agriculture, which is operated by the University of Saskatchewan, the vocational schools are municipally-owned and operated though assisted financially by provincial grants for buildings, equipment and operational costs.

Alberta

In Alberta both the Provincial Government and the municipalities are engaged in vocational education. The Provincial Government owns and operates the Institute of Technology and Art, Calgary, and the Agricultural Schools at Olds and Vermilion. A number of the larger school districts have established municipally-owned vocational facilities which are assisted by government grants.

British Columbia

In British Columbia all vocational schools are municipally owned. The Provincial Government encourages the school districts to establish the necessary facilities by supplementing the municipal finances with government grants for buildings, equipment and maintenance.

Each type of organization has a number of advantages and disadvantages which may be listed as follows:

Advantages of Municipally-owned Schools

1. A high level of local interest and support is developed.
2. The school program is usually closely related to the needs of the community.

Disadvantages

1. Difficult to establish due to cost.
2. Vocational programs are often slow to develop as they must have the support of public opinion to approve debenture issues.
3. Only open to residents of the municipality except on the payment of fees.

Advantages of Provincially-owned Schools

1. When the need arises development takes place more rapidly.
2. The schools can be strategically located more readily.
3. Costs are borne by the province as a whole and the burden does not fall upon small areas.
4. An overall provincial pattern or plan can be more easily established.

Disadvantages

1. Minimizes local interest.

VOCATIONAL EXPANSION IN CANADA

The Vocational Schools' Assistance Agreement has given a great impetus to the development of vocational school facilities. In all, 107 building projects have been approved for Dominion contribution. Of these, 73 are for additions or alterations to existing buildings, and 34 are for new schools. Dominion contributions have also been approved for equipment in 173 schools.

Types of Vocational Facilities Being Expanded under the Vocational Schools' Assistance Agreement listed in Table No. 1

A vocational wing has been added to the Prince of Wales College in Charlottetown, Prince Edward Island. The two projects under construction in Nova Scotia will be vocational schools at secondary school level. They are not intended to be composite as they will not offer the academic high school program.

The expansion in New Brunswick is chiefly in schools of a composite type. Five new schools of this type have been completed, and additions are being made to two existing composite high schools and the vocational school at Saint John. In Quebec, three types of facilities are being expanded. Fifteen arts and trades, nine specialized and five technical schools are being either added to, or new buildings are being built. Nine existing vocational high schools in Ontario are having additional shop facilities provided, and a new school is being built in Ottawa. Manitoba has a vocational high school under construction in Winnipeg, and one composite high school has been completed. An addition is planned for the Manitoba Technical Institute, as well as the addition of shops at twelve high school centres. In Saskatchewan, emphasis is being placed upon the development of composite high schools. Twenty-nine projects for additions to existing collegiates or high schools and one technical school have been approved. Four have been completed and eleven are under construction. Alberta has placed major emphasis upon the development of provincially-owned schools, three of which are schools of agriculture; the other projects include composite high schools at Edmonton and Calgary. With the exception of the vocational school in Vancouver, British Columbia's projects will develop vocational facilities at five composite high schools.

Table No. 1 lists the projects to which Dominion contributions have been approved. In each case, the Provincial Government contributes an equal or greater amount. Table No. 1 (a) gives the provincial and Dominion totals.

Further Expansion

To complete the data and present a complete picture of vocational expansion in Canada, there should be added a number of both building and equipment projects which are being undertaken by the provinces and municipalities without Federal assistance.

Prince Edward Island has under consideration the establishing of a number of composite high schools with some type of vocational work in each. Nova Scotia has planned 5 vocational high schools for the province. As mentioned elsewhere in this report, two are under construction. The other three schools are planned for Sydney, New Glasgow and Cumberland County at a location yet to be decided. These buildings will involve a total expenditure of about \$3,000,000 with the Provincial Government contributing approximately \$1,760,000. They will be vocational high schools and are intended to provide an education principally to students of secondary school age to fit them for jobs in specific occupational fields. In New Brunswick the construction of 23 further composite high schools has been undertaken by the municipalities and the Provincial Government at Lawrence Station, Shippigan, Southampton, Belleisle, Bay du Vin, Deer Island, Campobello, St. Francois, Stanley, Minto, Petit Rocher, Fredericton Junction, St. George, Paquetville, Simonds, Rothesay, Chipman, Boisestate, Petitcodiac, Keswick-Burts Corner, Perth-Andover, Pokemouche and Canterbury. These involve a total expenditure of about \$5,000,000, with the Department of Education contributing approximately \$2,750,000. A further expansion of arts and trades or specialized schools is under consideration in Quebec. New buildings or additions are being planned in 14 centres involving a provincial expenditure of \$4,700,000. In Ontario—new vocational schools are under consideration for York Township and New Toronto. The total cost is estimated at \$1,600,000, with the Provincial Government contributing about \$800,000. In Manitoba no further expansion is reported. Saskatchewan has under construction a school of agriculture at Saskatoon, an extension to the Moose Jaw Technical

School, and is considering extensions to the technical schools at Regina and Saskatoon. These involve an estimated expenditure of \$1,125,000. Alberta reports that no further vocational projects have been planned. British Columbia have under consideration additions to the schools at Trail, Kelowna, Vernon, Penticton, Dawson Creek, Armstrong, New Westminster, Prince Rupert, Courtenay, Prince George and Coquitlam, at an estimated cost of \$350,000, with the province contributing 50 per cent of the cost.

Tables No. 2 and 3 list the amounts which have been approved for Dominion contribution under The Vocational Schools' Assistance Agreement (both capital and annual), and the claims paid to the provinces. Tables No. 4 and 5 give a breakdown of Provincial Government and municipal expenditures for vocational education for the year 1947-48, except for Ontario, in which case, the expenditures are given for the previous year.

TABLE No. 1

List of Vocational Schools Approved for Dominion Assistance Under Vocational Schools' Assistance Agreement

	Estimated Total Cost		Approximate Dominion Contributions Approved	
	Buildings	Equipment	Buildings	Equipment
	\$	\$	\$	\$
	(Voc. Section only in Composite Schools)			
PRINCE EDWARD ISLAND				
Charlottetown.....	255,000	40,000	135,300	20,000
Vocational Wing and Annex				
Nova Scotia				
Halifax Technical.....	1,500,000	336,000	367,150	100,800
Yarmouth.....	300,000	84,250	90,000	25,275
Sydney.....	1,350,000		11,075	
Evening Classes.....		34,000		17,000
NEW BRUNSWICK				
Saint John Vocational.....	600,000	58,400	80,682	14,600
Moncton.....	500,000	104,500	66,444	26,125
Bathurst.....	500,000	87,500	85,266	21,875
Harvey.....	50,000	8,000	9,896	2,000
Port Elgin.....	230,000	11,800	43,041	2,950
Grand Manan.....	90,000	7,500	13,450	1,875
Salisbury.....	150,000	8,800	25,979	2,200
Plaster Rock.....	150,000	8,800	21,665	2,200
Belle Isle.....	58,000	7,500		1,875
Deer Island.....		7,500		1,875
Campobello.....		7,500		1,875
Lawrence Station.....	25,000	7,500		1,875
Shippegan.....	100,000	7,500		1,875
Southampton.....	75,000	7,500		1,875
Saint-François.....	23,000	7,500		1,875
Rothesay.....	150,000	7,500		1,875
Chipman.....	185,000	7,500		1,875
Stanley.....	175,000	7,500		1,875
Minto.....	300,000	21,000		5,250
St. George.....	195,000	9,500		2,375
Fredericton Junction.....	150,000	7,500		1,875
St. Stephen.....		15,000		3,750
QUEBEC				
Montreal Technical.....	455,000	165,000	206,250	61,000
Quebec Technical.....	409,000	243,000	204,500	122,000
Three Rivers Technical.....	325,000	60,00	162,500	30,000
Hull Technical.....	195,000	30,000	97,500	15,000
Furniture School.....		80,000		40,000
Graphic Arts School.....		60,000		30,000
Paper Making School.....	329,400	203,500	164,700	101,750
Saw-Mill School.....	115,000	120,000	57,500	59,555

List of Vocational Schools Approved for Dominion Assistance Under Vocational Schools' Assistance Agreement

	Estimated Total Cost		Approximate Dominion Contributions Approved	
	Buildings	Equipment	Buildings	Equipment
		(Voc. Section only in Composite Schools)		
		\$	\$	\$
QUEBEC—Continued				
Domestic Science School.....	11,000	8,000	5,500	4,000
Forest Protection School.....	12,000	10,400	6,000	5,200
Forest Ranger School.....	46,000	12,000	23,000	6,000
Central Arts and Trades Schools.....	250,000	*436,000	125,000	*218,000
Cap de la Madeleine.....	125,000	3,000	62,500	1,500
Chicoutimi.....	250,000		125,000	
Drummondville.....	200,000	2,500	100,000	1,250
Granby.....	170,000	2,200	85,000	1,100
St. Hyacinthe Textile Institute.....	517,000	150,000	258,500	75,000
Joliette.....	280,000	800	140,000	400
Lauzon.....	90,000	4,500	45,000	2,250
Automobile School.....	160,000	2,500	40,000	1,250
Maisonneuve.....	400,000	2,000	200,000	1,000
Octave Cassegrain.....	134,300		67,150	
Rimouski.....	450,000	66,000	150,000	33,000
Rouyn.....	130,000	4,000	65,000	2,000
Sherbrooke.....	325,000		162,500	
Sorel.....	280,000		140,000	
Thetford Mines.....	220,000		110,000	
Valleyfield.....	56,000	500	28,000	250
Montreal West.....	250,000		125,000	
ONTARIO				
Ryerson Technical Institute.....		9,600		4,800
Textile Institute, Hamilton.....	50,000	216,000	25,000	58,000
Vocational Teacher Training College.....		75,000		37,500
Jarvis Boys' School.....	44,000	8,000	11,000	2,000
Welland.....†	725,000	52,000	180,750	13,000
St. Catharines.....	255,000	40,000	61,875	9,625
Kitchener.....	450,000	107,000	111,750	25,250
Fisher Park, Ottawa.....	1,300,000	115,000	262,500	24,625
Delta, Hamilton.....†	1,300,000	220,000	320,000	49,000
Central Technical, Toronto.....†	2,000,000	250,000	500,000	62,500
H. B. Beale, London.....†	1,350,000	150,000	337,000	37,500
Stratford.....	600,000	125,000	150,000	26,000
Kirkland Lake.....	230,000	30,000	57,500	7,500
20 Municipal Schools.....		130,000		30,000
MANITOBA				
Dauphin.....	45,000	30,000	22,065	2,930
Manitoba Technical Institute.....	190,000	137,000	94,460	68,430
Winnipeg Vocational School.....	1,500,000	500,000	200,000	50,000
Brandon.....	107,000	53,000	21,000	14,000
Flin Flon.....†	150,000	25,000	10,000	5,000
Portage la Prairie.....†	185,000	35,000	17,500	7,500
9 Regional Schools.....†	675,000	223,000	132,500	47,500
SASKATCHEWAN				
Balfour Technical.....		45,950		15,020
Saskatoon Technical and College Institute.....	200,000	41,750	75,000	14,160
Moose Jaw Technical.....		40,835		13,990
Prince Albert.....	125,000	15,000	48,590	7,500
Yorkton.....	115,000	17,195	45,000	6,690
Swift Current.....	150,000	21,285	47,500	8,005
North Battleford.....	60,000	17,650	24,900	6,880
Weyburn.....	125,000	23,745	41,500	8,850
Estevan.....	75,000	14,745	29,275	5,560
Assiniboia.....	25,000	11,870	6,725	4,675
Melville.....	52,000	16,485	18,800	6,595
Wilkie.....	45,000	10,240	17,050	4,075
School of Agriculture.....	500,000	50,000	100,000	25,000
Regina Scott Collegiate.....	225,000	33,335	55,000	12,500
Rosthern.....	30,000	7,685	6,000	2,985

* Includes Equipment for all Arts and Crafts Schools.

List of Vocational Schools Approved for Dominion Assistance Under Vocational Schools' Assistance Agreement

—	Estimated Total Cost		Approximate Dominion Contributions Approved	
	Buildings	Equipment	Buildings	Equipment
	(Voc. Section only in Composite Schools)	\$	\$	\$
SASKATCHEWAN—Continued				
Sturgis.....	20,000	12,600	9,365	5,250
Kindersley.....	95,000	18,720	21,430	8,000
Wynward.....	22,000	7,500	8,750	3,000
Humboldt.....	46,000	15,500	17,595	5,655
Eastend.....	25,000	5,405	9,760	2,080
Nipawin.....	90,000	16,250	20,000	6,500
Shaunavon.....	40,000	14,385	16,000	5,755
Foam Lake.....	45,000	12,000	18,300	4,800
Carlyle.....	50,000	8,500	10,870	4,250
Lloydminster High School.....	110,000	12,000	19,200	4,800
Maple Creek.....	25,000	11,445	9,520	4,540
Moosomin.....	60,000	9,535	22,185	3,780
Tisdale.....	24,000	6,000	9,600	2,400
Rosetown.....	40,000	10,000	16,000	4,000
Melfort.....	95,000	16,640	25,500	6,575
16 other Composite Schools.....		59,290		20,650
ALBERTA				
Olds Agriculture School.....	126,250	5,060	63,125	2,365
Vermilion Agriculture School.....	40,000	51,970	20,000	25,280
Western Canada, Calgary.....		2,870		360
Institute of Technology and Art.....	22,500	228,000	11,250	112,500
Victoria, Edmonton.....	1,200,000	100,000	160,000	40,000
Peace River Agriculture School.....	500,000	100,000	250,000	19,000
Red Deer.....		3,285		820
Medicine Hat.....		3,215		730
Crescent Heights, Calgary.....	1,250,000		50,000	
Lethbridge.....		4,230		530
BRITISH COLUMBIA				
Chilliwack.....	62,500	11,000	10,500	3,850
Langley.....	87,520	12,160	15,315	5,255
Creston.....	34,560	11,000	12,095	3,850
Victoria.....	262,065	46,560	37,100	16,295
North Vancouver.....	40,000	29,410	14,000	10,290
Vancouver Vocational Institute.....	1,500,000	600,000	372,500	94,100
Vancouver Technical.....		28,880		10,020
Vancouver Grandview.....		6,630		2,320
Vancouver Fairview.....		7,265		2,540
Department of Visual Education.....		9,705		4,850
New Westminster Trapp.....		13,745		4,810
Burnaby North.....		3,240		1,135
Burnaby South.....		5,760		2,015
Alberni.....		4,475		1,565
Prince Rupert.....		3,045		1,065
15 other Schools.....		19,180		6,890
GRAND TOTAL—All Provinces.....	31,657,595	6,940,875	8,104,248	2,275,860

Dominion contributions include funds from annual grant and annual allotment as well as from special allotment for capital expenditures. For most schools only approximate amounts are given.

† Denotes Conditional Dominion Approval.

TABLE No. 1(a)
Provincial Totals

	Estimated Total Cost for Buildings	Approximate Dominion Approvals for Buildings	Estimated Total Cost for Equipment	Approximate Dominion Approvals for Equipment
Prince Edward Island.....	\$ 255,000	\$ 135,300	\$ 40,000	\$ 20,000
Nova Scotia.....	3,150,000	468,225	354,250	143,075
New Brunswick.....	3,706,000	346,423	423,300	105,825
Quebec.....	6,184,700	2,956,100	1,665,900	813,505
Ontario.....	8,304,000	2,017,375	1,527,600	387,300
Manitoba.....	2,852,000	497,525	1,003,000	195,360
Saskatchewan.....	2,080,500	667,415	616,140	239,360
Alberta.....	3,138,750	554,375	498,630	201,585
British Columbia.....	1,986,645	461,510	812,055	169,850
	31,657,595	8,104,248	6,940,875	2,275,860

TABLE No. 2
Dominion Assistance to Vocational Schools—Special Allotment for Capital Expenditures

Province	Buildings			Equipment		
	Total Allotment	Approximate Dominion Contribution Approved	Claims Paid to November 20/48	Total Allotment	Approximate Dominion Contribution Approved	Claims Paid to November 20/48
Prince Edward Island..	\$ 61,500	\$ 61,500	\$ 43,900 00	\$ 20,500	\$ 20,000	.....
Nova Scotia.....	378,225	378,225	22,074 39	126,075	126,075	.....
New Brunswick.....	324,750	324,750	.....	108,250	105,825	.....
Quebec.....	2,354,550	2,354,550	1,645,550 68	784,850	784,850	341,236 96
Ontario.....	2,273,625	2,017,875	.....	757,875	387,666	.....
Manitoba.....	492,000	465,000	3,257 55	164,000	164,000	.....
Saskatchewan.....	643,650	623,234	220,361 27	214,550	201,094	9,614 35
Alberta.....	525,150	525,150	198,143 08	175,050	175,050	86,584 96
British Columbia.....	446,550	446,550	11,957 43	148,850	148,850	33,997 23
TOTAL.....	7,500,000	7,196,834	2,145,244 40	2,500,000	2,113,410	471,433 50

TABLE No. 3
Dominion Assistance to Vocational Schools—Annual Allotments and Payments

Province	Annual Allotment and Grant	CLAIMS PAID				
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Prince Edward Island....	25,700	25,700 00	25,700 00	13,852 49	.....	65,252 49
Nova Scotia.....	106,400	32,324 71	23,208 58	22,107 97	.....	77,641 28
New Brunswick.....	92,700	81,598 35	71,035 99	114,365 00	.....	266,999 34
Quebec.....	609,400	609,400 00	608,370 33	582,806 02	170,239 12	1,970,815 47
Ontario.....	589,000	589,000 00	589,000 00	589,000 00	10,000 00	1,777,000 00
Manitoba.....	135,300	.....	.....	45,588 38	.....	45,588 38
Saskatchewan.....	173,900	64,456 80	49,003 98	75,817 03	3,922 80	193,200 61
Alberta.....	143,800	100,025 71	122,822 39	147,470 00	14,939 66	385,257 76
British Columbia.....	123,800	70,356 85	140,471 96	123,800 01	10,000 00	344,628 82
TOTAL.....	2,000,000	1,572,862 42	1,629,613 23	1,714,806 90	209,101 58	5,126,394 13

TABLE No. 4

Provincial Government Expenditures for Vocational Training—Including Federal Assistance

Province	Provincially-owned Schools			Grants to Municipally-owned Schools			Total Provincial Government Expenditures
	Buildings	Equipment	Salaries and maintenance	Buildings	Equipment	Salaries and maintenance	
1947-48							
Prince Edward Island.	(¹) 175,000	(¹) 10,500	.....	.....	.....	.....	(¹) 185,500
Nova Scotia.....	.....	19,296	62,327	.....	.....	15,257	96,880
New Brunswick.....	.....	.....	.....	.....	21,249	254,992	276,241
Quebec.....	1,694,942	1,161,449	2,586,378	.....	.....	.....	7,387,895
Ontario.....	†	†	(³) 50,344	†	†	(⁴) (3) 3,197,657	(³) 3,248,001
Manitoba.....	69,333	4,293	16,320	.....	10,859	50,883	151,688
Saskatchewan.....	.....	.....	.....	48,763	19,578	148,160	216,501
Alberta.....	55,622	(²) 98,397	521,861	118,853	10,000	115,000	(²) 919,733
British Columbia.....	1,770	9,630	10,270	23,914	68,556	247,210	361,250

† Amounts not available.

(1) Total expenditures 1946-48.

(2) Includes operation of Olds and Vermilion Agricultural Schools by Department of Agriculture.

(3) Expenditures in Ontario during 1946-47.

(4) Total Vocational grants to municipalities.

TABLE No. 5

Municipal or School Board Expenditures on Vocational Education

	Buildings	Equipment	Salaries and Maintenance	Total Expenditures
1947-48				
Prince Edward Island.....	Nil	Nil	Nil	Nil
Nova Scotia.....	Nil	Nil	Nil	Nil
New Brunswick.....	†	206,000	265,000	465,000
Quebec.....	.....	.....	.....	125,000
Ontario.....	.....	(¹) (²) 1,199,955	(¹) 5,714,565	(¹) 6,914,520
Manitoba.....	41,536	†	†	†
Saskatchewan.....	†	357,716	52,243	†
Alberta.....	.....	.....	406,453	816,412
British Columbia.....	†	†	†	†

† Amounts not available.

(¹) Fiscal year 1945-46.(²) Capital expenditures including Buildings and Equipment.

SECONDARY VOCATIONAL EDUCATION IN CANADA

In no two provinces has the work been organized and developed in the same manner, although there are many features which are common to all provinces.

The technical and vocational high schools and technical and vocational departments of composite high schools are organized on a pattern which provides for broad general objectives and includes content aimed to meet the needs of the student as a citizen, as well as a worker. Cultural and academic subjects are given first place and no attempt is made to produce fully skilled mechanics in any branch of industry. Most schools in each province follow a uniform pattern as outlined by the Provincial Department of Education or other responsible departments.

A number of specialized technical schools or institutes have been developed to train technicians and workers for specialized industrial fields for which training could not readily be provided in the regular day vocational or technical schools. These are noted under each provincial analysis.

In the following provincial analysis the industrial programs have been chosen for purposes of comparison. Commercial, home economics and agricultural programs have a time allotment similar to the industrial.

Prince Edward Island

Vocational classes in commercial and industrial fields are taught at the Prince of Wales College, Charlottetown. Industrial classes are general in nature and related to the agricultural industry of the province.

Nova Scotia

Vocational Work in High Schools

Vocational classes are conducted in the commercial field in a number of Nova Scotia high schools. Vocational high schools, one at Halifax and another at Yarmouth, are under construction and will offer diversified vocational programs.

Type of Vocational Work Found in Province

Approximately 230 vocational evening classes are attended by 4,000 students taking work in about 40 different subjects.

The curricula for these schools are arranged in a sequence for a period of 1, 2 and 3 years, where content material warrants, and students are given a diploma when they complete courses. Tradesmen instructors are used in industrial fields. These classes are rather closely supervised and regulated. They are operated for (a) upgrading of workers in a field, (b) preparation for occupation in a new field and (c) refresher work in occupational fields.

Vocational evening classes are conducted for miners to assist them in preparing for examinations for various miners' certificates.

Subjects taught—principles of mining, steam engine operation, mine electricity, mine surveying.

Classes are held at selected centres where 10 or more persons of required educational standing petition for such instruction.

The Division of Vocational Education states that no classes are taught at any level, or designated as vocational, unless they are precisely that and prepare for work in an occupational field.

Nova Scotia Agricultural College

Degree Course—first two years of B.Sc. in agriculture
Entrance requirements—Junior Matriculation

Farm Courses

Purpose—general training in practical agriculture
Entrance requirements—16 years of age
—farm background
—satisfactory school standing
(preferably Grade X)

Length of course—5 months

Advanced farm course—second 5-month term

Special subjects—farm management, livestock, field crops, fruit and vegetables, farm mechanics, marketing

Short courses have been a special feature of this college, and with the development of Youth Training a large number of these courses have been held both at the Agricultural College and outside points. Courses are given in dressed poultry, creamerymen, farm mechanics, fur farming, egg grading, homecrafts, poultry raising, bee keeping, canning, soils and crops, horticulture.

New Brunswick

The school program has been organized offering five avenues through high school: (a) Academic, (b) Commercial, (c) Industrial, (d) Agriculture, (e) Home Economics. The courses considered vocational are (b), (c), (d) and (e). It is intended that students shall choose one of the above programs at either the Grade IX or Grade X level. In vocational courses Grade IX students spend $33\frac{1}{3}$ per cent of their school time in the shop or field of specialization; Grade X—40 per cent; Grade XI—50 per cent (exclusive of related work). Students who wish further specialized training may attend the Saint John Vocational school, the larger urban composite high schools, or the Provincial Technical Institute.

Three types of schools offer vocational work—(a) Regional High Schools, (b) Composite High Schools, (c) Vocational Schools:

Regional High Schools

These are small composite high schools located in rural or small urban areas. Each has a large shop suitable for farm mechanics, rooms or laboratories for home economics and agriculture. Adequate basic equipment is prescribed for each room. The shop courses reflect the industry of the area, whether it be agriculture, fishing or lumbering. It is planned to bring these schools within the reach of all boys and girls by constructing a maximum of 40 of them, located at strategic centres. Buses are used to transport students to these schools. The following are in operation:

Bay du Vin, Deer Island, Campobello, Harvey, Lawrence Station, St. Francois, Belleisle, Grand Manan, Salisbury, Port Elgin, Southampton, Plaster Rock, Shippigan.

Composite High Schools

These are located in larger urban centres. Each has vocational departments generally organized on unit shop basis. Courses include woodworking, machine shop practice, electricity, drawing, motor mechanics and vocational agriculture. Schools in this classification are located at—

Edmundston, Fredericton, McAdam, Newcastle, Campbellton, Dalhousie, Bathurst, St. Stephen, Moncton, Sussex.

Vocational Schools

Saint John offers complete three-year vocational courses (Grades IX-XI) in the technical, industrial, home economics and commercial fields. One-year special courses for high school graduates in industrial, commercial and, also, a one-year course in commercial wireless, radio and beauty culture.

Carleton County Vocational School at Woodstock offers one-year courses in commercial work and home economics, and two-year courses in agriculture. The latter course consists of two-year courses of ten months each year. Five months of each year are spent in the school studying plant science, animal science, blacksmithing, farm mechanics, English and social science. The students spend the

second five months on the farm, carrying on projects in seed growing and stock and poultry raising, under close supervision of the vocational agricultural teacher of the school. The agricultural departments at Edmundston, Newcastle, St. Joseph's University and Sussex are organized on a similar basis.

Analysis of New Brunswick Industrial Program in Composite Schools

	No. of Periods per Week (24-35)	
	Grade X	Grade XI
English	3 - 6	4
Social Studies	2 - 4	2 - 4
Mathematics	3 - 5	3 - 5
Science	3	2 - 4
Physical Education	2	
Shop	10 - 16	12 - 18
Other	2	2 - 4

Provincial Technical Institute—Moncton

Purpose of school—trade and technical training

Entrance requirements—high school graduation from industrial departments of high schools

Length of course—one and two-year for regular course, also special courses of shorter duration

Courses—shop teacher training (both industrial arts and tradesmen teachers)

Trade training—carpentry, drafting, electricity, machine shop and tool making, motor mechanics, auto body repair and painting, barbering, bricklaying, plastering, cabinet making and upholstery, diesel, dress-making, pattern making, plumbing and pipefitting, practical nursing, sheet metal, welding, shoe repair and harness making, radio servicing, millwrighting, blacksmithing, household aids

Three months' refresher course in apprenticeship trades

Maritime Forest Ranger School

Purpose of school—to train for the Provincial Forest Services and for industry

Entrance requirements—21 years of age

—Grade VIII

—one year's experience in forest work

Length of courses—four terms of nine weeks each with a four month recess between terms

Subjects taught—elements of forestry, mathematics, surveying, dentrology, entomology, silviculture, forest protection, forest improvements, etc.

Quebec

The major part of vocational training in Quebec, which is in the industrial field, is under the direction of the Department of Youth and Social Welfare which has charge of the specialized, technical and arts and trade schools. The Provincial Secretary's Department administers the household science and commercial work (neither of which are listed as being vocational) and the schools of fine arts. The agricultural schools are under the jurisdiction of the Department of Agriculture, and the Department of Lands and Forests operates the forest protection, forest ranger and saw mill schools.

Technical Schools

Montreal—Quebec, Three Rivers, Hull, Shawinigan Falls, Rimouski.

Training for key positions in industry.

Technical course: 4 years; Entrance requirements—2nd grade high school.

Specialties—drafting, woodworking, carpentry, pattern making, welding, forge, foundry, mechanics, electricity, electronics and plastics (in Montreal); industrial chemistry (in Hull and Shawinigan).

In addition to the subjects mentioned above—

Marine School (Attached to Rimouski Technical School)*Navigation Course*

Length of Course—2 years.

Entrance requirement—High School Graduation.

Marine Mechanic

Length of Course—3 years

Entrance requirement—Grade X (including practical apprenticeship.)

Trade course: (in Quebec, Three Rivers, Hull, Rimouski and Shawinigan) 2 years; Entrance requirements—Grade VII.*Special courses:* (in Quebec, Three Rivers and Hull).

10 to 12 months' duration.

Motor mechanics, electricity applied to motor cars, body work, painting, welding, etc.

Arts and Trade Schools

Amos, Cabano, Cap-de-la-Madeleine, Drummondville, Joliette, La Tuque, Lauzon, Montreal (4), Mont-Laurier, Chicoutimi, Granby, Montmagny, Iberville, Magog, Sorel, Matane, Rouyn, St-Jean, Verdun, Valleyfield, Victoriaville, St. Jérôme, Sherbrooke, St-Gabriel de Brandon, Thetford Mines, Rivière-du-Loup, Three Rivers, Grandes Bergeronnes, Huberdeau.

Training for skilled hands in trades—2- or 3-year course.

Entrance Requirements—either Grade VII or IX according to the case.

Specialties—to meet local requirements, most of the trades taught in the technical schools.

Two schools of special character to this group:

(a) *Central School of Arts and Trades (Montreal)*

Length of courses—2 years.

Specialties—cooking, pastry making, horology, hat-making, hairdressing, dress-making and designing, tailoring, shoemaking, fur making, etc.

(This school accepts both boys and girls)

(b) *Automobile School—(Montreal)*

Length of course—12 months, divided into 3 periods

Entrance requirements—Grade VIII

Subjects taught—mechanics and electricity applied to motor cars, body work, painting, etc.

The schools at Grand'Mère and Port Alfred, which were provincially operated arts and trades schools, are now carried on by local School Commissions in much the same manner. An arts and trades school, under the local commission, has also developed at Arvida.

Highly Specialized Schools*Furniture-Making School—1097 Berri Street, Montreal*

Arts pertaining to furniture-making and interior decoration.

Craftsmanship course: 4 years, Entrance requirement—high school graduation.*Apprenticeship course:* 3 years; Entrance requirement—Grade IX.

Specialties—cabinet-making, woodworking applied to furniture, ceramics, interior decoration, wood-carving, furniture designing.

Weaving course: 2 years.*School of Graphic Arts—2020 Kimberley Street, Montreal*

Training for key positions in printing and bookbinding trades.

3-year course; Entrance requirements—high school diploma.

Specialties—typography, hand and machine composition; layout, printing, book-binding, gilding, chemistry applied to printing, etc.

Paper-Making School—2250 St. Olivier Street, Three Rivers

Training for key positions in paper mills.

Scientific and Practical course: 3 years; Entrance requirement—2nd year high school.

Specialties—laboratory, paper and wood pulp analysis and experiments, research, technique of paper-making.

Textile School—2255 Avenue La framboise, St. Hyacinthe, P.Q.

Training for key positions in textile industries.

Scientific and Practical course: 4 years.

Entrance requirement—Grade IX diploma or equivalent—for the chemistry course—high school diploma.

Specialties—Textile design; wool, cotton and linen manufacturing; textile chemistry and dyeing; weaving.

Correspondence Courses' Bureau

Courses prepared to give to people not living in cities, where specialized schools are established, the opportunity to acquire some knowledge of the technology of the different trades taught in these schools or to learn some mathematics and sciences connected with technical education. In addition, the office is responsible for the publication of technical text books in the French language to cover the program followed in the technical and trade schools.

Forest Protection School—Duchesnay

Purpose of school—to train technicians in forest protection

Length of course—2 months (September and October)

Entrance requirements—18 years of age; must possess forest ranger's diploma

Special subjects—forest protection in Quebec, forest fires, prevention of fires, legislation, organization, discovery of fires, fighting of forest fires, forestry meteorology and entomology.

Saw-Mill School—Duchesnay

Purpose of school—to train for forest products' industry.

Length of course—4½ months to 3 years, depending on specialization.

Entrance requirements—16 years of age; Grade VIII to XI, depending on field of specialization.

Special subjects—millwright, sawyer, accounting, lumber grading, kiln drying, saw filing, scaling.

Forest Ranger School—Duchesnay

Purpose of school—to recruit and train forest rangers and agents, wardens, bush foremen and scalers.

Length of course—8 months (two, two-month terms for each two years)

Entrance requirements—age 18-28—Elementary education.

Special Subjects—French, mathematics, accounting, forest, botany, dentrology, myrology, entomology, sylviculture, reforestation, fire prevention, scaling and timber estimating, surveying, drafting, legislation, woodcraft.

School of Fine Arts—Quebec and Montreal

Purpose of school—to give training in fine and commercial art.

Length of course—regular course—4 years—special course—5 years.

Entrance requirements—minimum age 16 years; Grade IX.

Special subjects—painting, sculpturing, commercial art, interior decorating, weaving, ceramics.

Youth Aid Service

Vocational guidance, scholarships and employment facilities for the benefit of the above mentioned school students or for young people wishing to enter these schools.

Organization of post-scholar courses on specialized subjects; such as, co-operation, fisheries, craftsmanship, agricultural specialties, domestic work (specially in Upton School), foremanship training, monitors' training, etc.

Technical and Trade Courses

Allotment of hours in the course adopted by the Board of Directors of Specialized Training.

Technical Course**FIRST YEAR**

Subjects	Number of Hours per Week	
	Ist Semester hours	2nd Semester hours
Shops	12	12
Mechanical Draughting	4	4
Sketching	1	1
Arithmetic	3	1
Algebra	3	3
Geometry	3	3
Mechanics	0	2
Industrial Materials	1	1
Machine Parts	1	1
French	2	2
English	2	2
Sociology	1	1
Total	33	33

SECOND YEAR

Subjects	Number of Hours per Week	
	Ist Semester hours	2nd Semester hours
Shops and Technology	12½	12½
Mechanical Draughting	4	4
Sketching	1	1
Algebra	2	2
Geometry	2	2
Mechanics	1	1
Trigonometry	1	1
Physics and Laboratory	3	3
Chemistry and Laboratory	2	2
Electricity and Laboratory	2	2
French	2	2
English	2	2
Sociology	1	1
Total	35½	35½

THIRD YEAR

Subjects	Number of Hours per Week	
	Ist Semester hours	2nd Semester hours
Shops and Technology	14	14
Mechanical Draughting	4	4
Descriptive Geometry	2	2
Algebra and Applied Mathematics	1	1
Mechanics	2	2
Physics and Laboratory	3	3
Chemistry and Laboratory	3	3
Electricity (1)	1	1
French	2	2
English	2	2
Sociology	1	1
Total	35	35

(1) Students specializing in electricity attend special lectures 4 hours per week.

FOURTH YEAR

—	Electronics	Electricity	Machine Shop	Smithy	Foundry	Wood working	Pattern Making	Plastics	Sheet Metal
Shops and industrial visits (including technology)	16½	12	17	18	17½	18	18½	16½	17½
Shop (complementary) electricity	3	30							
Shop (complementary) electronics		3	45						
Shop (complementary) welding		((1))	((1))		((1))				
Electricity (theory and laboratory)	3	4							
Chemistry of plastics								1	
Design for plastic castings								1	
Theory of plastics								1	
Technology of plastics								1	
Mechanical Draughting	2	1	4	4	4	4	4	2	4
Canadian Electricity Code		2	1						
Descriptive	3	3	3	3	3	3	3	3	3
Applied Mathematics	2	2	2	2	2	2	2	2	2
Resistance of materials	2	2	2	2	2	2	2	2	2
English	1	1	1	1	1	1	1	1	1
Bookkeeping and business initiation	2	2	2	2	2	2	2	2	2
History and geography	1	1	1	1	1	1	1	1	1
Sociology	1	1	1	1	1	1	1	1	1
Heating (first half-year)	(1)	(1)	(1)			(1)			(1)
Refrigeration (second half-year)	((1))	((1))	((1))	((1))	((1))				((1))
Industrial legislation (first half-year)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	35	35	35	35	35	35	35	35	35

(1) —1st half-year.

((1))—2nd half-year.

LEGEND

¹ including plans and estimates.² this subject may be taught alone or may form part of the *plans and estimates* or the *technology* lectures.³ to be taken from the time reserved for the shop, in the half-year considered the most favourable.

Trade Course

	First year	Second year
French	2	2
English	2	2
Sociology	1	1
Mathematics	4	3
Practical science	1	2
Business initiation		1
Blueprint reading	3	3
Shops	20	19
Total	33	33

Training Centres Under Apprenticeship Commissions

Fifteen apprenticeship commissions have been organized in Quebec, and each assumes responsibility for the training of apprentices either in a geographic area or a trade. The Commissions of Montreal, Sherbrooke and Chicoutimi have established full-time training centres for pre-employment classes in the building trades. The commissions in the other centres have organized courses in cooperation with technical education.

Schools of Agriculture

Vocational agriculture is taught in the following schools:

Advanced Schools: MacDonald College, Oka Agricultural Institute, Ste-Anne School of Agriculture.

Intermediate Schools: Rimouski, Ste-Martine, Ville-Marie, Chicoutimi, Nicolet, Sherbrooke.

Regional Schools: Mont-Laurier, St-Barthélemy, La Ferme, St-Rémi, St-Césaire, Ste-Croix, Val-d'Espoir, Ste-Anne-de-la-Pérade, Academie St-Pierre.

The Domestic Science Service

The specialized domestic science schools are divided into three groups:

(a) 62 Intermediate—for Grades VIII and IX

(b) 34 Regional—offering a four-year course

(c) 3 Advanced—students are admitted to the two-year course from the third year of the regional schools.

These schools are not considered vocational.

Ontario

The Ontario program of vocational education is widely diversified and highly organized. The schools maintain close contact with industry through evening classes, part-time classes, vocational advisory councils and placement services for graduates. Vocational guidance is well organized as a regular service in all schools.

Vocational programs are carried on in one or more vocational fields at secondary school level in the following schools:

Belleville, Brantford, Chatham, Cornwall, Fort William, Galt, Guelph, F. R. Close Technical School, Hamilton, Hamilton Westdale, Hamilton High School of Commerce, Kingston, Kirkland Lake, Kitchener, London, Niagara Falls, North Bay, Oshawa, Ottawa Technical, Ottawa High School of Commerce, Owen Sound, Peterborough, Port Arthur, St. Catharines, St. Thomas, Sarnia, Sault Ste Marie, Sudbury, Timmins, Toronto—Central, Northern, Danforth, Western, Central High School of Commerce, Eastern High School of Commerce, Malvern Commercial, Welland, Weston and Windsor.

Evening Classes only—

Collingwood, Pembroke, Renfrew, Simcoe, Stratford, Woodstock, Barrie, New Toronto. Classes in Navigation are also held at—

Collingwood, Kingston and Midland.

Students in the vocational industrial or technical classes in Ontario schools follow a reasonably uniform pattern. In Grades X, XI and XII all students are required to take the basic core of English, social studies, physical and health education and citizenship training along with the mathematics related to their specialized course.

	Grade X	Periods per Week	Grade XI	Grade XII
English	7	6	6	
Social Studies or History	6	4	4	
Physical and Health Education	5	5	5	
Mathematics	5	5	5	
Science	5	4	4	
Shop Work	12	16	16	
Art				
Options { Music	4	4	4	
(any one) { Drafting				
French				

GRADE IX—Vocational schools may offer the general course in Grade IX, or a vocation industrial course in which the time allotted to shop work shall not be less than 25 per cent of the total time.

Special Schools

Provincial Institute of Mining, Haileybury

Purpose of school—to give technological training to meet the requirements of the mining industry.

Entrance requirements—Grade X for 3-year course and Grade XII for 2-year course.

Length of course—3-year and 2-year courses.

List of specialized subjects taught—surveying, assaying, milling, mining, physics, chemistry, mineralogy, geology, drafting and general shop.

Provincial Institute of Textiles, Hamilton

Purpose of school—to give specialized technical training to workers and technicians in the textile industry.

Entrance requirements—high school graduation.

Length of course—3 years, also evening classes.

List of specialized courses taught—textile manufacturing, cotton, woollen and worsted, knitting, weaving, textile dyeing and finishing.

Lakehead Technical Institute, Port Arthur

Purpose of school—to give specialized technical training in mining and forestry and general courses in first-year arts and practical science.

Entrance requirements—high school graduation for technical courses; Grade XIII for general courses.

Length of courses—2 years.

Ryerson Institute of Technology, Toronto

Purpose of school—training of technicians for industrial occupations.

Entrance requirements—secondary school graduation or equivalent; 18 years of age

Length of course—generally 2 years, except in case of trade courses of 9 months' duration.

List of specialized courses taught—electronics, jewellery and horology, business, architectural drafting, furniture crafts, photography, fashion crafts, food technology, machine tool technology, graphic arts, welding, fabrication, stationary engineering, cosmetology, barbering.

Kemptville Agricultural School

Purpose of school—to provide a practical and scientific knowledge of all phases of agriculture, home economics, homemaking, cheese and butter making.

Entrance requirements—public school education; 16 years of age.

Length of course—6 months per year.

2-year courses in agriculture and home economics.

1-year homemaker's course.

3 months (cheese and butter makers)

Forest Ranger School, Dorset, Ontario

(Under the direction of the University of Toronto and the Department of Lands and Mines)

Purpose of school—to train forest rangers, foresters and workers in forest products' industries.

Courses are open to—selected employees of Department of Lands and Forests
—undergraduates of Faculty of Forestry.

—selected candidates from forestry industry.

Subjects taught—elementary forestry, forest protection, communications, timber cruising, log scaling, reforestation, sylviculture.

Ontario College of Art, Toronto

Purpose of school—to give training in fine and commercial art.

Entrance requirements—talent in field of art.

Length of course—4 years.

Special subjects taught—drawing and painting, commercial art, interior architecture, industrial design, ceramics, design in wood, textiles, metalwork, and jewellery, teachers' crafts.

Manitoba

Manitoba conducts vocational work in the commercial field in four schools with an enrolment of two hundred seventy-seven students. There are industrial courses in four schools with an enrolment of one hundred twenty-four. The vocational day schools are located in Winnipeg, Brandon and Dauphin, and composite high schools are proposed in twelve more centres.

The high school curriculum for Manitoba has been revised to offer students their choice of five courses—agriculture, commercial, general, home economics and

industrial. The general course is university preparatory in nature, while the other four are vocational.

The following is the proposed program for the industrial courses in composite high schools which is being planned for 13 additional centres. In each of the vocational courses a minimum of 50 per cent of the students' time will be spent in vocational and related work.

	Grade X	Grade XI	Grade XII
Option	10	10	10
English	12	12	12
Social Studies	10	10	10
General Mathematics	10	10	5
Health and Physical Education	8	8	8
Shop Science	8	8	8
Drafting	9	9	7
Shop	30	30	30
Guidance	3	3	
Industrial {			10
Sociology }			

Manitoba Technical Institute—to open October 4, 1948

Purpose of school—to train technicians for industry

- pre-apprenticeship and apprenticeship training
- full-time and part-time vocational and technical training
- teacher training for technical and vocational education
- evening classes for apprentices and civilians

Entrance requirements—not specified

Length of courses—from short courses to 2 years

Courses taught—automotives, diesel, machine shop, radio, industrial electricity and appliances, commercial education, beauty culture, tailoring, dressmaking, needle trades, cooking, woodworking and upholstery, shoe repairing, drafting, watch repairing and all building trades.

Saskatchewan

Vocational education in Saskatchewan is being expanded rapidly at the present time, and although much of the instruction in industrial work and home economics is of a general nature, it is being planned to meet the needs of the industries of the province.

Most of the vocational work is carried on in composite schools. Three large schools of this type are located at Regina, Saskatoon and Moose Jaw. Similar schools of an intermediate size are being developed at such centres as Prince Albert, Lloydminster, Weyburn, Estevan, Swift Current and Yorkton. Smaller composite high schools are being organized at centres such as Humboldt, Kindersley, Sturgis and Wilkie.

When present plans are completed, some 30 schools (composite in type and varying in size and enrolment) will have been developed. Other schemes employing itinerant teachers are used to bring the advantages of a diversified program to still smaller communities.

At present, commercial work is taught in nineteen centres, industrial in nine, home economics in five and agriculture in one. Vocational programs are being planned in twenty-one additional centres.

Technical High School Program

While the three Saskatchewan technical schools at Regina, Saskatoon and Moose Jaw follow the pattern of general objectives, their individual school patterns are not uniform. The following is a representative analysis of their industrial programs.

	Grade IX	Periods Per Week		
		Grade X	Grade XI	Grade XII
English	7	7	7	9
Social Studies or History ..	7	5	5	6
Health and/or P.T.	5	3	2	1
Shops	9-16	12-15	11-16	10-15
Drafting	4	4	4	5
Mathematics	6	8	9	10
Science	4	4	11	5-12
Guidance	1	0-1	0-1	0-1
Library		3	3	3
Study	1-2	1-2	0-2	0-2

SPECIAL ONE-YEAR COURSE FOR H.S. GRADUATES

Commercial	Industrial	Home Economics			
Typing	11	Mathematics	3	Art	4
Shorthand	11	Science	3	Sewing	46
Office Practice..	8	Shop	32		
Economics	5				
Accounting	5				

A new program of studies is being organized for the composite high schools of the province. It is a four-year course based on the earning of 140 credits over the four years. A typical grade breakdown follows:

GRADES IX, AND X—35 CREDITS REQUIRED PER GRADE

Industrial, Commercial, Homemaking, Related Studies
8 8 8 English 7, Mathematics 6, Science 5, Guidance 1, Social Studies 6, Optional 5.

GRADES XI AND XII—TOTAL OF 35 CREDITS PER GRADE

Industrial, Commercial, Homemaking, Related Studies
12-16 12-20 10 English 7, Mathematics 4, Science 6, Social Studies 6.

Saskatchewan School of Agriculture—University of Saskatchewan

Purpose of school—to fit young men for fuller and better life on the farm
Entrance requirements—Grade VIII—age 17—at least one year practical farm experience

Length of course—two years—each of five months' duration

Subjects taught—First Year: farm motors, farm machinery, farm management, live-stock feeding and management, crop production, farm horticulture and beekeeping, farm dairying, poultry, speech and English, rural life.

Second Year: farm crops, animal breeding, farm buildings, farm shopwork, farm and soil management, veterinary science, insect pests, plant disease, speech and English, agricultural extension.

Alberta

Day school vocational work in Alberta is carried on in three types of schools—(1) Institute of Technology and Art at Calgary, (2) Agricultural schools at Olds and Vermilion, with another proposed in northern Alberta, (3) Composite high schools at Edmonton, Red Deer, Calgary, Medicine Hat, Lethbridge and Cardston.

Commercial classes are conducted in twenty-eight centres, industrial classes in six, agricultural classes in six, home economics in six.

Vocational evening classes are in operation in 2 centres with enrolments of 666.

Vocational High School Program

The Alberta high school program of studies offer courses in two major fields—(a) Commercial, (b) Technical. Vocational agriculture has been recently included in the technical group.

In Grade X the compulsory subjects are:

English 1	(5)
Social Studies 1	(5)
Physical Education 1	(3)
Health 1	(2)

In Grades XI and XII English and social studies are compulsory subjects.

A student may choose from vocational electives (technical or commercial) 8 or 15 credits. A double shop choice is usually made (15 credits). A choice of an academic or general elective is frequently made in addition to the above.

Regulations governing the regular high schools also apply to the composite high schools.

Where the technical electives are offered there is no separate credit allowance for drafting or related theory. These are integral parts of the shop program.

	Grade X	Grade XI	Periods Per Week Grade XII
English	5	5	5
Social Studies	5	5	5
Health and Physical Education	5		
Mathematics or Science	5	5	5 or 10
Shop	8 or 15	8 or 15	10 or 15
Elective		6	5 or 10
	<hr/> 36	<hr/> 36	<hr/> 35

Shops listed are woodwork, metalwork, electricity, automotive, arts and crafts and printing.

(100 credits are required for high school graduation)

Program of Olds and Vermilion Schools of Agriculture—2-Year Course

Entrance requirement—age 17

—with elementary education to profit by their attendance at the school.

	Periods Per Week 1st Year	2nd Year
Animal Husbandry	5	5
Botany	2	2
Chemistry	3	3
Economics	—	2
Rural Sociology	—	1
Dairying	—	2
English	3	3
Entomology	1	—
Farm Management	1	2
Field Husbandry	4	4
Horticulture	2	1
Mathematics	3	3
Farm Mechanics	6	7
Poultry	2	—
Physics	2	1
Soils	—	2

Applicants who have completed seventy high school credits may be permitted to take above 2-year course in one year, in which case, mathematics and English are omitted.

Home Economics' Courses

	Periods Per Week	
	1st Year	2nd Year
Cooking	3	3
Nutrition	3	3
Sewing	4	4
Selection of Clothing and textiles	2	2
Household Administration	2	3
Home Nursing	2	2
Laundering	2	-
Household Mechanics	2	1
Horticulture	2	1
Social and Family Relations	1	1
English	3	3
Mathematics	3	3
Chemistry	3	3
Dairying	2	2
Poultry	2	2

Institute of Technology and Art

Entrance requirements—16 years of age

—Grade X for electrical, aeronautical and auto mechanics
—Classes or qualifications approved by staff

3-Year Course

Auto Mechanics
Aeronautical Engineering
Industrial Arts for teachers
2-Year Courses—Sept. 27-May 20
Industrial Electricity Pre
Requisite Grade X
Machine Shop
Building Const. and Drafting
Mechanical Drafting
Surveying and Drafting
Ind. Dressmaking and Commercial
Cooking
Agricultural Mechanics
Radio and Refrigeration Servicing

Sept. 7-June 24

Pre Requisite—Grade X
Air Engineering

1-Year Course—Sept. 7-June 24

Commercial Wireless

5-Months' Course—Nov.-March

Auto Electricity
Farm Construction and
Mechanics

10-Weeks' Course

Tractors

3-Weeks (12 courses each year)

Oxy Acetylene and Electric
Welding

Art 4-year Course

Fine Arts

Commercial Art

3-Year Course

Applied Arts and Gen. Crafts
Potter and Ceramics, Indus.

Design

2-Year Course

General Art.

Vocational Correspondence Instruction

The Institute is also the headquarters for Alberta vocational correspondence instruction. Courses are available in the following subjects:

Preliminary mathematics for miners and steam engineers,

Mining—1st, 2nd, 3rd class and surveying,

Steam—1st, 2nd, 3rd class and provisional third.

British Columbia

Vocational education in British Columbia is well established and characterized by careful planning, good organization and close co-operation between the schools and industry.

Day classes in the fields of industry and commerce are conducted at—

Vancouver, North Vancouver, Victoria, New Westminster, Fernie,
Coquitlam, Nanaimo.

Vocational agriculture and commercial classes are taught at—

Chilliwack, Creston, Langley, Kelowna, Penticton and Oliver.

Commercial classes are also taught at—

Cranbrook, Kimberley, Nelson, Courtenay, Prince George, Powell
River, Rossland, Duncan, Ladysmith, Prince Rupert, Richmond,
Alberni, Burnaby, Abbotsford, Trail, Fernie and West Vancouver.

Vocational evening classes are carried on in 8 school districts, with an enrolment of 4,121.

A new vocational institute is under construction in Vancouver which will offer courses in machine shop practice, motor vehicle repair, diesel, welding, radio, wireless operating, drafting, barbering, quantity cooking, hairdressing, dressmaking, marine engineering, navigation, lumber grading and logging camp timekeeping, practical nursing, shoe repair, watch repair, foundry, heating and refrigeration, commercial, sheet metal, tailoring, power sewing machine operation, electricity, plumbing, auto mechanics, steam engineering, carpentry, cabinet-making, plastering, painting and decorating. A number of the courses are being conducted in temporary quarters and will be transferred when the vocational school is completed.

The British Columbia secondary school program of study offers courses in three major fields:

(a) Commercial, (b) Agricultural, (c) Industrial.

Specialization in each major field is provided for as follows:

Commercial Courses

1. Retail selling, 2. Secretarial, 3. Bookkeeping and General Clerical.

Agricultural Courses

1. Farm Mechanics, 2. Agricultural (General), 3. Horticulture.

Industrial (Specific Trade Courses)

1. Machinist, 2. Sheet Metal, 3. Lumber, 4. Electricity (Applied),
5. Carpentry, 6. Auto Mechanics, 7. Mining, 8. Drafting (Mechanical), 9. Drafting (Architectural), 10. Welding.

Vocational Technical Courses are also offered in the Industrial field with specialization in: 1. Machine Shop, 2. Auto Mechanics, 3. Sheet Metal, 4. Carpentry, 5. Farm Mechanics, 6. Applied Electricity.

The courses in the vocational technical group differ from the industrial (specific trade) in that mathematics and science courses, with a weighting as in academic courses, are carried through the three years of high school work. Also, students who have a reason for seeking university entrance, and who have completed successfully the first year of a foreign language in Grade IX, may take their second year as an elective. To allow time for the foreign language in Grade XII, five periods of shop work may be taken by adding one period in the morning or at the end of the day, before or after regular school hours. The ten periods per week shop could then be taken during the last period and the added period each day. This arrangement enables students to take the vocational technical course and university entrance in four years (Grades IX-XII) without reducing the time spent in shop classes.

TYPICAL VOCATIONAL HIGH SCHOOL COURSE—B.C.**Machine Shop**
Vocational Technical Course — Industrial Trade Training Course

Vocational Work	Periods	Vocational Work	Periods
GRADE X		GRADE X	
Drafting.....	2	Drafting (Mechanical).....	2
Machine Shop.....	3	Machine Shop.....	3
Sheet Metal.....	3	Carpentry.....	3
Forging and Heat Treatment.....	2	Sheet Metal.....	3
General Science IV.....	5	Electricity.....	3
Mathematics IV.....	5	Shop-Science.....	3
Vocational Guidance.....	1	Shop-Mathematics.....	3
	—	Vocational Guidance.....	1
	21		21
<i>Academic Work</i>		<i>Academic Work</i>	
Health and Physical Education....	3	Health and Physical Education...	3
English.....	5	English.....	5
Study.....	1	Study.....	1
French II or any foreign language..	5	1 elective outside field.....	5
	14		14
GRADE XI		GRADE XI	
Drafting.....	2	Machine Shop.....	16
Carpentry.....	2	Welding.....	2
Electricity.....	3	Drafting.....	2
Machine Shop.....	3	Vocational Guidance.....	—
General Science V.....	5		21
Mathematics V.....	5		
Vocational Guidance.....	1		
	—		
	21		
<i>Academic Work</i>		<i>Academic Work</i>	
Health and Physical Education....	3	Health and Physical Education..	3
English.....	5	English.....	5
Social Studies.....	5	Social Studies.....	5
Study.....	1	Study.....	1
	—		—
	14		14
GRADE XII		GRADE XII	
Drafting.....	2	Machine Shop.....	16
Machine Shop.....	8	Welding.....	2
Physics (A) or Chemistry (A).....	5	Drafting.....	2
Mathematics (A).....	5	Vocational Guidance.....	1
Vocational Guidance.....	1		—
	—		21
	21		
<i>Academic Work</i>		<i>Academic Work</i>	
Health and Physical Education....	3	Health and Physical Education..	3
English.....	5	English.....	5
Social Studies.....	5	Social Studies.....	5
French III.....	5	Study.....	1
	—		—
	18		14

Table No. 6 Gives the number of day vocational schools in each province which reported the listed courses or subjects being taught.

Table No. 7 gives the same information for evening classes.

TABLE No. 6
Subject Frequency—Day School—1947-48

—	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
INDUSTRIAL									
Aero Engineering.....				*	1				
Automotive.....		6			33	2	3	5	2
Baking.....									
Bookbinding.....									
Bricklaying.....	1					1			
Cabinet Making.....		2			4	1	3		3
Carpentry.....	1	8			35	5	3	5	2
Ceramics.....									
Chemistry (Ind.).....					1				
Cooking (Chef Training).....					1				1
Diesel.....					1				1
Drafting (Arch.).....					6				
Drafting.....		8			35	5	3	5	3
Dressmaking.....		1			8	2	1	3	1
Electricity.....	1	8			32	4	3	5	3
Electronics.....		1			3		1	1	
Engineering (Stationary).....					2				
Farm Mechanics.....		3				1	2	3	1
Forestry.....					2				
Forging—Blacksmith.....		2			1	4	2	3	
Foundry.....					3				1
Fur Making.....									
Furniture Making.....					1				1
Horology.....					2				
Lumber Grading.....									
Machine Shop.....		5			35	4	3	5	4
Marine Engineering.....									
Mining.....					2				
Millinery.....					3				
Painting.....					1	1			
Pattern Making.....					10				1
Photography.....					1				
Plastering.....						1			
Plastics.....					2				
Plumbing.....	1					3	1	1	
Papermaking.....									
Printing.....		1				11			
Radio.....		4				5		2	3
Refrigeration.....							1		1
Sheet Metal.....	1	5				17	3	2	3
Shoe Making and Repair.....						2			
Tailoring.....						1			1
Textile.....						1			
Upholstering.....						1			
Weaving.....									
Welding.....		3				25	2	3	4
Wireless Operating.....		1				2		1	1
COMMERCIAL									
Typing.....	1	*	9	*	37	6	19	5	37
Shorthand.....	1		9		33	6	19	5	36
Office Practice.....	1		9		33	5		5	31
Bookkeeping.....	1		9		33	6	19	5	35
Business English and Law.....	1		9		33	5	5	3	30
Business Mathematics.....			9		33	4	2	4	30
Business Machines.....	1		6		33	3	3	1	14
Economics.....					38		1		
Salesmanship.....					12				

x No figures available for Quebec or Nova Scotia.

Subject Frequency—Day School—1947-48—Continued

	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
HOME ECONOMICS									
Home Economics.....			9	*	6	6	5	5	.....
Cooking.....			4		17	1		5	5
Dietetics.....			4		2	1		4	4
Sewing.....			4		20	1		5	5
Clothing and Textiles.....					4				
AGRICULTURE									
Vocational Agriculture.....			4		3		1	4	3
SERVICE OCCUPATIONS									
Barbering.....					3				1
Beauty Culture.....			1		2				1
Hairdressing.....					2				1
OTHER									
Commercial Art.....			1		7	1		2	2

* No figures available for Quebec.

TABLE No. 7
Subject Frequency—Part-Time Evening Classes—1947-48

	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
INDUSTRIAL									
Aero Engineering.....				*	1				
Automotive.....	7	2			29	1	3	1	2
Bricklaying.....					1	1			
Building Construction (Carpentry and Woodworking).....	10	4			30	4	3	1	3
Cabinet Making.....		3			8	2	3	1	1
Chemistry (Industrial).....	1				5				
Chemistry.....					1				
Cooking (Chef Training).....									
Diesel.....	1				1			1	2
Drafting (Arch.).....					1				1
Drafting.....	4	3			31	2	2	1	2
Dressmaking.....		3			19	2	2	1	1
Electricity.....	3	3			30	2	1	1	4
Electronics.....		1			7	1	1	1	
Electro-plating.....					1				
Farm Mechanics.....									
Forging/Blacksmith.....					1	2	1		
Foundry.....					1				1
Furniture Making.....					1				
Glass Blowing.....					1				
Horology.....					1				
Machine Shop.....	1	3			32	2	3	1	2
Millinery.....					5				
Mining.....	13								
Needle Trades.....					2		1		
Painting and Interior Decorating.....					3	1			
Paper Making.....					3				
Pattern Making.....					1				
Photography.....									
Plastering.....						1			
Plumbing and Steamfitting.....					1	5			1
Printing.....		1				5			1
Radio.....	4	2			5	1	2	1	2
Refrigeration.....					3				1
Sheet Metal.....					8	2	1		2
Shoe Making and Repair.....									
Shop Mathematics.....	11				15				
Steam Engineering.....					10		1		2
Tailoring.....		1			3				
Telegraphy (Wireless).....		1						1	
Telephony.....					2				
Textile.....					2				
Tool Making.....					1				
Welding.....	5	2			25	3	3	1	1
COMMERCIAL									
Typing.....	10	5			35	2	2	1	9
Shorthand.....	10	4			33	2	2		6
Office Practice.....		1			2		1		
Bookkeeping.....	10	5			34	2	2	1	6
Business English and Law.....					2		1		3
Business Mathematics.....		1			4				2
Business Machines.....					12		2		1
Salesmanship.....	1				4				2
HOME ECONOMICS									
Home Economics.....			2			3	3		
Cooking.....	7	1				22		1	
Dietetics.....		1				2			
Sewing.....	29	4				23		2	
AGRICULTURE									
Vocational Agriculture.....						1			
SERVICE OCCUPATIONS									
Barbering.....									
Beauty Culture.....			1			1			
Hairdressing.....						2			
OTHER									
Commercial Art.....	2	1			12			1	1

* No figures available for Quebec.

TABLE No. 8

Number of Industrial Shops

Each shop has an estimated accommodation for 15-20 students

—	B.C.	Alta.	Sask.	Man.	Ont.	Que.	N.B.	† N.S.	PEI.
Machine Shop.....	4	5	3	3	57	*	3	1	1
Motor Mechanics.....	2	6	3	2	47	.....	6	7	.....
Diesel.....	1	1	—	1	1	.....	1	1	.....
Acetylene Welding.....	1	1	3	3	23	.....	2	1	.....
Arc Welding.....	1	1	—	3	13	.....	1	.....	.....
Blacksmith.....	1	1	—	3	1	.....	5	.....	.....
Foundry.....	1	—	—	—	3	.....	—	.....	.....
Instrument or Watch Repair.....	—	—	—	1	1	.....	—	.....	.....
Radio.....	—	2	3	3	5	.....	1	5	.....
Wireless Operating.....	1	1	1	—	1	.....	1	.....	.....
Drafting.....	4	7	3	4	74	.....	3	5	1
Bricklaying.....	—	—	—	1	—	.....	—	.....	1
Carpentry or Building Construction or Woodworking or Pattern Making.....	5	7	3	4	54	.....	7	12	1
Sheet Metal.....	3	4	1	1	18	.....	7	.....	1
Electrical Construction or Maintenance.....	3	6	3	2	46	.....	4	1	.....
Plumbing and Steamfitting.....	—	—	1	1	3	.....	—	.....	.....
Plastering.....	—	—	—	1	—	.....	—	.....	.....
Aircraft Maintenance or Repair.....	—	1	—	—	2	.....	—	.....	.....
Barbering.....	—	—	—	—	2	.....	—	.....	.....
Chef Training.....	1	1	—	—	2	.....	—	.....	.....
Printing.....	1	2	—	—	15	.....	1	.....	.....
Hairdressing.....	1	—	—	—	2	.....	1	.....	.....
Power Sewing.....	—	—	—	—	2	.....	—	.....	.....
Tailoring.....	—	—	—	1	1	.....	—	.....	.....
Refrigeration.....	—	—	—	1	—	.....	—	.....	.....
Lumber Grading.....	2	—	—	—	—	.....	—	.....	.....
Mining.....	1	—	—	—	2	.....	—	.....	.....
Dressmaking.....	1	—	—	—	—	.....	—	.....	.....
Textiles (Weaving).....	—	—	—	—	4	.....	—	.....	.....
Baking.....	—	—	—	—	—	.....	—	.....	.....
Shoe Making.....	—	—	—	—	2	.....	—	.....	.....
Cooking.....	—	—	—	—	—	.....	—	8	.....

† Shops for Evening Classes.

* No figures available for Quebec.

GUIDANCE, PLACEMENT, ACTIVITIES AND FOLLOW-UP STUDIES IN VOCATIONAL SCHOOLS

Basic to the consideration of vocational training are certain procedures which are part of generally accepted guidance programs. Most schools use some of these procedures—a few employ many.

The fundamentals of good vocational training require that the training be supplied (a) for jobs existing at the time when the training is completed (b) for jobs existing in the area which the training provisions serve, and (c) to persons able to take advantage of the training supplied. These three principles have been violated to a greater or less degree in almost every variety of vocational and professional preparation.

Plans for vocational training should include carefully organized provisions of the following nature:

- (1) Determining the analysis, distribution and requirements of jobs for which training courses prepare.
- (2) Acquainting the potential trainee with his own characteristics, the qualifications required for the job and the opportunities it offers.
- (3) Selecting individuals for training who possess potential qualifications which match job requirements.

- (4) Guidance procedures during the training course.
- (5) Placement activities.
- (6) Follow-up studies.

The foregoing procedures are applicable and useful in every situation involving vocational training, and can be applied irrespective of numbers enrolled or size of institution. Without them proper protection is not supplied to the individual being trained, the institution which supplies the training, or to the employer who will eventually use the service for which the training is organized. All these procedures should be considered if the training program, organized in a particular locality or institution, is to function efficiently in reaching its legitimate objectives.

An analysis of existing practices in guidance, placement services and follow-up studies indicates that Canadian Vocational schools run the gamut of development. Principals reported guidance was a regular service in 104 schools, although many were just beginning the work. In 12 schools no such service was offered.

Five provinces now have a provincial Director of Guidance, and the service is being promoted rapidly. The following chart gives the replies to: "Is Guidance a regular service in your school?"

—	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
Number of Schools.....	1	.....	11	*	.....	7	3	7	38
Yes.....			5	.....	all	7	3	4	34
No.....	1	.....	6	.....	.....	.....	.....	3	4

* Guidance work in Quebec schools is carried on cooperatively with the Aid to Youth Service.
No figure available for Quebec.

Comments on the service varied from "of some value" to "very important", with the majority expressing the latter opinion. Typical comments were—"keeps many students at school"; "intensifies interest in purposeful study"; "has made classification more definite, progress better and placement better"; "it is an integral part of placement".

Secondary education, being preparatory in nature, prepares the students for their next step in life, whether university entrance, further training, or gainful employment. An increasing number of schools recognize placement as a supplement to training and a major responsibility of the school which gives the training; also, that no other agency can undertake this service as effectively as the school staff, who know each student's ability, aptitudes, interests and where he is most likely to succeed. The most successful work in this field appears to be carried on in schools where close contact is kept with industry and the world of work through the instructors and advisory committees.

Although the placement of commercial graduates was most frequently reported, the schools of Ontario, British Columbia, and one in New Brunswick, indicated they undertook responsibility for the placement of all graduates. In all, 61 schools reported that they consistently placed over 80% of the graduates. In Quebec the Youth Aid Service operates a special employment department for the benefit of vocational school graduates. Of the remaining 35 schools 8 reported co-operative placement with National Employment Service, and 27 offered no such service.

Follow-up records and studies are not a general practice in Canadian Vocational Schools. Less than half the schools indicated they maintained a follow-up of their graduates. It is amazing that in vocational education, where

proficiency on a job is the proper measure of the success of the school program, such a large percentage of schools do not concern themselves further about their graduates. When undertaken, follow-up studies indicate whether the training meets the needs of the students, where it could be improved and whether employers find it to be valuable. The following chart indicates the replies to—"Do you keep follow-up records of students?"

—	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
No. of Cases.....	1	.....	9	†	†	6	3	7	35
No.....	1	.....	3	.....	.....	4	2	4	18
Yes.....	.....	.....	6	.....	.....	2	1	3	17
6 months.....	.....	.....	1	.....	.....	.....	.....	.....	.....
1 year.....	.....	.....	1	.....	.....	.....	1	.....	12
5 years.....	.....	.....	2	.....	.....	.....	.....	2	5

† No report.

PART-TIME OR CO-OPERATIVE TRAINING SCHEMES

A number of part-time or co-operative training schemes are in operation in Canadian Vocational Schools. Under each of these plans the students spend a part of their senior year working for employers in their field of specialization. No uniform pattern has developed, so the details of such schemes are presented:

Central High School of Commerce—Hamilton

The girls in their senior year are sent out one afternoon a week for ten straight weeks each for three terms. Thus, a girl has a chance to work in three different offices. The school plans a rotation to ensure that the girls work in different types of offices, e.g., small, large, manufacturing, services, etc. It is required that the office manager send to the school, in advance, a program of the girls' work for these ten weeks. The school also insists that the girl make a memorandum of her experiences each week, and at the end of ten weeks that she make a summary report, a copy of which is sent to the office manager. The girl reports to her assigned office for the ten straight weeks at whatever time the office goes in after lunch, works until their quitting time, and receives no pay.

The firms are carefully selected and represent a good cross section of the city's business offices. The students are also carefully selected and only the best girls are sent out. The students are given to understand that they are receiving a privilege that has to be earned. A participating student who lets her school work decline is removed from the group at the end of the term.

Central Technical School—Toronto

Students in the fourth year of the aircraft course are sent to the Toronto Flying Club for work experience. The club uses the students for two weeks on regular shift and takes three students at a time. In this way each member of the fourth-year class obtains a total of one month's experience by the end of May. This arrangement is without expense to the Board and the parents of the students are required to sign a waiver of responsibility.

Danforth Technical School

In this scheme, pairs of senior students alternate between the school and industry. The boys in any trade, say in industrial chemistry, are paired together to certain firms. When one boy of the pair is at school his partner is working for the firm. The scheme is carried on throughout the whole grade so that all

students change at the same time, no matter whether they are in the chemistry, electrical or some other division. While at school they are grouped as one academic class. This means that the manufacturer always has one boy and may carry on work continuously. At school there is repetition to the work every two weeks. For approximately four weeks in September all students are at school and are given extra academic periods in their time table so as to make up in some measure for the time lost when in industry. Homework assignments are not given during the two-week period the students are in industry. One shop teacher of each special class and the shop director are given one-half day per week to act as coordinators for whatever work the plan might involve. This includes visiting the plants and following up the leads given in the monthly reports.

Westdale Secondary School—Hamilton

For three years a co-operative training arrangement with business establishments has been in effect whereby the commercial students in the fourth-year graduating class go out to work in the various offices every Thursday afternoon. The first period extends from October 1 to November 30, with each student reporting to the same office throughout the eight or nine weeks. After the new year the students are switched to an office of an entirely different business. The second period extends from January 1, to March 15.

Recently, on the suggestion of students and office managers, a different plan is being tried. Instead of going out every Thursday afternoon for a period of several weeks, the students are sent out for one full week at a time. During the first week in November the entire fourth-year class was out in offices. The following week a brief report on each student is obtained from the office managers participating in the training and also a report is prepared by each student on his week's work in the office. The final week for completing the co-operative training will be the last week in February. From reports received the full-week training plan has met with success. The training has been more concentrated, better planned and more thoroughly carried out.

F. R. Close Technical Institute—Hamilton

A co-operative training plan is being conducted between the F. R. Close Technical Institute and the Local Automotive Repair Trade, with the fourth-year students majoring in motor mechanics. The time-tables of these students show motor mechanics all afternoon for each and every school day, so if a student is selected, and can be placed, he works in the automotive repair shops of the city every afternoon, Saturdays and holidays. The shops are selected by the head of the motor mechanics' department who also selects the boy or boys for each particular shop. The students are paid by the shops on an hourly rate varying from 35 cents to 65 cents per hour, depending upon the ability and the experience of the student (the school does not concern itself with wage agreements which are entirely between the student and the firm). A student is assigned to one mechanic in a large repair shop who is a specialist in a particular line; i.e., brakes, tune-up, etc. The mechanic trains the student from raw helper to become a competent assistant on that particular type of work, if it is within the student's capabilities and interest. The student is shifted periodically around the establishment on different types of work and under the direction of different mechanics. Should such a case arise that a boy does not fit in a particular shop, he is withdrawn by the school and placed in another shop, or returned to the regular classes in the school. The mechanics report to their superintendent on

the student's progress and ability and this, in turn, is gone over between the superintendent and the head of the school's motor mechanics' department. These students qualify, if satisfactory, to receive their secondary school graduation diploma, provided their academic work also meets the required standards.

Ontario Regulations

The regulations of the Ontario Department of Education permit students in the graduating classes of the vocational schools, whose standards are satisfactory to the principal, to take employment related to their courses at a date not earlier than May 1. The diplomas of such persons are withheld until the employer certifies that their work during the ensuing four months has been of a satisfactory character.

In commenting upon the cooperative or part time plan the principals of the schools have stated:

"It has been our experience that these co-operative students have almost perfect attendance, excellent behaviour, improved academic standings to the extent that nearly every one has been fully recommended in all subjects. The esprit de corps among these students has been excellent."

"There is much to be said for the co-operative practical plan of office practice. The girl acquires poise and confidence that only experience can give. She becomes acquainted with the different types of industry and offices which better enables her to decide the kind of position she would like to take. She also makes valuable contacts, and a large proportion of the girls eventually go to work with one of the firms to whom they have been assigned."

The school gains in that the Grade XII course is made more attractive, the office practice classes are made more interesting through the discussion of the girl's actual office experiences, and the students themselves work harder because they know that only the best will be assigned to offices. We have found the plan most beneficial to the school, the student and business.

Three Rivers Technical School

The graduating class of the regular four-year course participate in the co-operative or part-time training program. The last year of the course is divided into six, six-week periods and the class into two groups. While one group is in an industrial plant, the other is at school. The groups are alternated every six weeks, giving each student three periods at school and three periods of industrial training and experience in the various industries of their trade department. The groups are rotated to different industries for each of their periods of work and in no case return to a plant a second time. During the periods in school the students follow exactly the same course in theoretical studies as students of the same grade in other technical schools of the province.

During their working period the students are required to write a report on a technical subject in order to keep them in contact with their studies and school work. The topics are usually relative to the industry in which they are working. The industries, on their part, submit a report on the students' work and conduct in the plant. This co-operative program is a verbal and friendly agreement between the school and industry and does not entail any obligation on the part of either the school or industry. The student is required to conform to all rules and regulations of the company by which he is employed, and if for reason of bad conduct or disregard of the rules and regulations the employer decides to expel him, he will automatically be expelled from the school.

Although it is understood that the student is only a learner gaining practical experience and not a permanent employee, it is agreed that he will be remunerated for his services at the rate of fifty cents per hour.

The co-operative training program has been in operation for a number of years and has the enthusiastic support of local industries, with the following participating in the scheme:

International Paper Mills Co.
 St. Lawrence Paper Mills Co.
 Consolidated Paper Co.—Wayagamac Division
 " " " St. Maurice Paper Division
 Canada Iron and Foundries Co.
 The Shawinigan Water and Power Co.
 The St. Maurice Transport Co.
 The Dominion Foils Ltd.

and many other small industries in the city, such as:

C.H.L.N. Radio Station—Trois Rivières
 Le Frères Lebrun (wrought iron works)
 Les Ameublements Laviolette
 Three Rivers Pattern and Woodworks
 Adélard Sévigny (contractor and woodwork manufacturer)
 Three Rivers Chevrolet Motor Sales Ltd.
 Kimball Automobile Ltd.

VOCATIONAL ACTS AND REGULATIONS

Vocational education is administered in a different manner in each province. Some provinces have a Vocational Education Act; others have regulations as part of a schools or education act; and still others make little mention of administration of vocational education. The acts and regulations are in greater detail and more specific where expansion has been widespread. Conversely, vocational development has proceeded more rapidly and soundly where the program has been governed by good regulations and directed by a responsible official. The following summary briefly outlines the authority under which vocational schools and departments are operated and administered in each province:

Nova Scotia

Nova Scotia's Act relating to vocational education specifies the appointment of a Director of Vocational Education and necessary assistants; assigns the Director the duties of promoting and supervising vocational schools and their services, reporting to and advising the Council and Legislature on the services under his jurisdiction. The Act authorizes the Governor in Council to establish needed vocational facilities upon recommendation by the Director. Provision is made specifically for the establishment of vocational evening schools, schools for miners, technical institutes, schools for apprentices, the training of vocational teachers, and the operation of the vocational correspondence study branches.

Regulations *re* vocational evening schools have been established specifying a minimum enrolment of ten, that the local authority supply quarters, heat, light, janitor and caretaking services, and one-half of the instructional costs. The regulations also provide for appointment of local or regional advisory

committees with advisory powers only, and for the appointment of local directors responsible for:—

1. Organization, operation and maintenance of vocational evening classes in the locality concerned, subject to approval of the Director of Vocational Education.
2. Submissions of recommendations for appointment to instructional staff, requisitions for equipment, materials, supplies, attendance and progress reports.
3. Exercising supervision over classes.

The salaries of instructors, time of classes, subject fields, curricula, and the issuing of diplomas or certificates are specifically outlined.

The regulations relative to schools for miners provide for classes, upon the recommendation of the Director of Vocational Education, in the principles of mining, steam-engine operation, mine electricity, mine surveying, where ten or more persons of required educational standards make application. The local Board of School Commissioners is required to provide for accommodation, and the Provincial Treasury meets the costs of staff, materials and supplies, special equipment, text books and apparatus, as well as heating and lighting. Fifty sessions of any one class, beginning in October, are provided for during each year.

New Brunswick

The New Brunswick Vocational Education Act of 1923 requires the appointment of a Provincial Vocational Education Board of nine members, consisting of the Minister of Education, Deputy Minister of Agriculture, Chief Superintendent of Education, Principal of the Normal School, and six other members representing the chief industries and vocations of the province. It also provides for the appointment of a Director of Vocational Education, and a local vocational committee comprised of representatives from school boards, employers and employees' organizations. Authorization is given school boards to establish, through the vocational committees, approved vocational schools, the curricula of which will include instruction pertaining to industry, agriculture, fisheries, home economics, commerce and art. The Act prescribes the types of courses, admission requirements, duration of classes, i.e., full-time, part-time, daytime or evening, allotment of time to subjects, size of classes, staff organization, certification and qualification of instructors (Tables No. 11-14). It also provides for provincial grants as in Table No. 9 and for supervision of schools by the Director of Vocational Education or his representative.

The duties of the Provincial Vocational Board are outlined, in part, as—

1. Administration of all work carried on under the Vocational Education Act.
2. Recommendation to Board of Education regarding vocational education.
3. Training and certification of vocational teachers.
4. Approving of plans for all new vocational buildings and departments, their establishment, organization and equipment.

Local Vocational Committees are responsible for:—

1. Preparation of vocational budget for approval.
2. Administration of vocational education funds.
3. Provision of suitable accommodation and equipment for vocational education.

4. Employment and dismissal of teachers, officials and fixation of salaries.
5. Establishment and control of vocational classes; making returns thereon to the Vocational Board.

Quebec

Vocational regulations in Quebec differ from other provinces in that vocational schools are administered under the authority of several different departments. A further number have been established through private initiative, some of which belong to religious orders. These latter, however, are committed to the supervision of the General Director of Studies in the field of specialized training.

The Department of Agriculture maintains and supervises twenty-seven agricultural schools. The Provincial Secretary's Department supervises training in household science, commercial work, school of drama and music and the schools of fine arts. The Department of Game and Fisheries maintains the schools of fisheries. The Department of Labour maintains, through local commissions, the apprenticeship training centres and, also, a rehabilitation centre for wounded veterans and injured workers. The Department of Lands and Forest maintains the Forest Protection, Forest Ranger and Saw Mill schools.

Under the Department of Youth and Social Welfare is administered the greater part of the vocational education. The work in this department is conducted under the authority of the Specialized Schools' Act. The Act governs the schools of higher commercial studies, fine arts, the technical schools, furniture-making school, graphic arts school, paper-making school, textile school, arts and trades schools, and the initiation schools of handicrafts, applied arts and trades.

The Act requires the appointment of a Superior Council of Technical Education. The membership includes the directors-general of technical education and arts and trades schools; the directors of three technical schools, the schools of fine arts, school of higher commercial studies, furniture-making school, the polytechnic school and the graphic arts school; the superintendent of Education; the presidents of the Catholic Workers Federation and the Provincial Federation of Labour; representatives from industry in Montreal, Quebec, Three Rivers and Hull, and one representative from each of the Roman Catholic and Protestant committees of the Council of Education. This council acts in an advisory capacity to the Minister of Youth and Social Welfare on matters pertaining to general organization, courses of study, and perform other duties assigned to it.

The Act also requires that in each school there be appointed a director and the necessary instructors, a council of improvement consisting of seven members, and a council of patrons, composed of persons of standing, in every field whose influence may promote the development of the school. The councils are consulting bodies and advise on matters of interest to the schools.

Although the schools are provincially owned and supported, provision is made for grants from cities where technical schools or other specialized schools are established. Other topics covered by provincial regulations include—procedures for establishing new schools, type of class, time of instruction, curricula, minimum attendance, organization of staff, qualifications of staff, inspection by vocational inspectors and the awarding of diplomas and certificates.

Ontario

The Industrial Education Act was replaced by the Vocational Education Act in 1921 and, from time to time, has been revised. The Act makes provision for appointment of a Provincial Director of Vocational Education, and sets forth his duties. It requires that an Advisory Vocational Committee, consisting of eight or twelve persons, representative of the Board of Public School Trustees, the Separate School Board, employers and employees, shall be appointed in each district where vocational schools or departments are operating. This Advisory Committee is given power, in conformity with the regulations of the Act to organize, finance, equip, staff and operate the vocational school or departments.

The Act provides for the establishment of vocational schools or departments giving instruction in the fields of homemaking, art, industry, commerce and agriculture. It specifically outlines the steps to be followed in establishing new vocational schools or departments: the organization of staff, i.e., principal, heads of departments, teachers; setting up of standards relative to certification and qualifications shown in (Tables No. 11-14); and sets forth the duties and responsibilities of such personnel. It stipulates when classes are to be held, and whether they may be full-time, part-time, daytime or evening, also regulates minimum and maximum enrolments, subject time allotment, and makes the requirement that 50 per cent of a student's time shall be spent in shop or laboratory and related subjects.

The basis of grants is given in Table No. 9. Provision is made for supervision of vocational classes by the Director of Vocational Education or other qualified vocational inspectors, and for the establishment of a vocational guidance follow-up program. Provision is also made for the establishment of technical institutes and schools to serve specialized industries.

Manitoba

Manitoba has no separate Vocational Education Act. The Public Schools Act authorizes the Minister to make regulations *re* the establishment and operation of technical or agricultural schools and make grants to technical or vocational education. A Provincial Director is appointed under the Department of Education.

Saskatchewan

In Saskatchewan, the three technical high schools are organized under the Vocational Education Act. The Act requires that each vocational school shall establish a vocational education committee representative of its school board, employers and organized labour. This committee is responsible for the provision of suitable class accommodation, fixation of teachers' salaries, their employment and dismissal, and for reporting to the school board upon those schools under its jurisdiction. The regulations for vocational schools specify teacher qualifications (Tables No. 11-14) and grants (Table No. 9). In accordance with prescribed vocational regulations, courses may be organized in industrial, commercial, agricultural, home economics and art. It is noted that provision is not made for the appointment of a Director of Vocational Education nor for the inspection of vocational schools by a vocational inspector.

Under the Secondary Education Act the Department of Education exercises control and supervision over vocational departments of all composite high schools, prescribes the curricula and directs inspection of vocational departments by a high school inspection staff. Vocational advisory committees are not required in these schools.

TABLE No. 9
Bases of Provincial Grants to Vocational Education

Province	Salaries	Equipment	Buildings
British Columbia.....	\$200 per full-time teacher, proportionate amount for part-time teacher. Plus regular grants. \$20 per full-time student. 70% of salary of teachers holding vocational certificate.	70% of approved equipment while Clause 3(c) of V.S.A.A. is in effect.	70% of approved buildings while Clause 3(c) of V.S.A.A. is in effect.
Alberta.....	\$150 Annually per teacher in addition to Regular Grants of \$700.00. Plus equalization 9 (\$110,000—average assessment per room) ¹	25% of approved expenditures to maximum of \$200 per vocational teacher.	No Regular Grant for buildings. Special Grant may be given by Minister.
	1,000		
Saskatchewan.....	No. rooms. \$5.25 per day per teacher for 80-100% time on Vocational Work. \$4.75 per teacher per day for 60-79% time on Vocational Work. \$4.25 per teacher per day for 40-59% time on Vocational Work. \$600 per teacher plus regular grants.	80% of approved equipment under V.S.A.A. 40% of all other.	80% of approved buildings under V.S.A.A.
Manitoba.....		The lesser of (a) \$300 for each technical teacher plus \$10 per technical student. (or) (b) 1/3 of net expenditures for approved technical equipment and/or supplies.	Not specified.
Ontario.....	85% of first \$20,000. 75% of second 20,000. 65% of third 20,000. 55% of any further amount.	50% of Municipalities approved payments from current revenue for preceding year.	50% of Municipalities approved payments from current revenue for preceding year. 100%.
Quebec.....	100% of cost of operations—All Vocational schools are provincially owned.	100%.	100%.
New Brunswick.....	60% when population over 6,000. 63% when population 2,000-6,000. 75% when population under 2,000.	50% of approved equipment.	For approved buildings: 60% of first \$100,000. 50% of second 100,000. 40% of third 100,000. 30% of portion over 300,000.
Nova Scotia.....	60% all operational costs. Vocational schools to be provincially owned. In trust for contributing Municipalities.	60%	60% of cost of approved buildings.
Prince Edward Island.....	100%—Provincially owned.	100%—Provincially owned.	100%—Provincially owned.

* Vocational Schools Assistance Agreement.

Alberta

In Alberta, vocational education is regarded as a normal part of the educational program and is not subject to any special act. The school grant regulations and certification regulations contain the only reference to vocational instruction. They do not have a Director of Vocational Education nor a Provincial Vocational Board. The Schools of Agriculture are under the administration of the Department of Agriculture.

British Columbia

All vocational day and night classes are operated by local school boards, under regulations laid down in the Public Schools' Act. The regulations prescribe teacher training and certification, the programs of studies, the inspection of schools by vocational inspectors, and grant payments under the Dominion-Provincial Vocational Schools' Assistance Agreement. Vocational classes receive additional operational grants to those already paid under the regular school system, as well as grants towards the cost of capital equipment and buildings. Before grants are given by School Boards under the above agreement for day or night vocational classes, it is required that an Advisory Committee be appointed for each vocational course offered in each school, and this committee is responsible for advising the School Board on matters relating to curricula, placement, equipment and standards of training.

A Provincial Director is appointed and vocational courses are authorized in art, commercial, industrial, sewing, cooking and agricultural fields.

There is no separate Provincial Vocational Education Act.

TABLE NO. 10
Provincial Grants for Evening Classes

Province	Salaries	Equipment
Prince Edward Island.....	Not Established.	
Nova Scotia.....	100% of cost of miners' class other than accommodation. 50% of instructors' salaries. Local Admin. salaries at \$1.25 per hour.	100% of equipment needed. 100% of administrative costs.
New Brunswick.....	60% in Communities of 6,000 and over population. 66½% in Communities of 2,000—6,000. 75% in Communities of less than 2,000.	
Quebec.....		
Ontario.....	90% of first \$20,000. 80% of second \$20,000. 70% of third \$20,000. 60% of any further amount.	
Manitoba.....	\$2.00 per 2 hour session.	
Saskatchewan.....	40% of salaries' grant not to exceed \$2.00 per teacher per night.	
Alberta.....	60% of salaries if less than 30 teachers employed. 40% of salaries if over 30 teachers employed.	
British Columbia.....	50% of salary up to maximum grant of \$4.00 per night after the regular grant of 30% has been deducted. \$5.00 per student, per year where material are used.	

TABLE No. 11
Minimum Qualifications
Vocational Teachers—Commercial—High School Level—1945

Province	Academic	Practical Experience or Training in Field of Commerce	Professional Training
British Columbia.....	Junior Matriculation. Assistant Commercial Teachers' Certificate.	5 years' experience in business.	15 units of prescribed teacher training.
Alberta.....	Grade XII. Senior Matriculation.	Either (a) One year training (5 days per week for 40 weeks) in High School in subject field. Or (b) Diploma from Business College and successful completion of Faculty of Education test in that subject field.	2 years at Faculty of Education plus special certificate in subject field.
Saskatchewan.....	Grade XII.....	Junior Technical Certificate (Commercial)— Limited to high schools employing not more than 5 teachers. Successful completion of courses in Typewriting, Shorthand, Principles and Methods of Commercial Work, plus any one of Accountancy, Business Economics, Office Practice. No experience required—Senior Technical Certificate (Commercial) Qualifications not established.	First class teachers' certificate (one year).
Manitoba.....	Grade XII	Desirable but none required.	1 year plus 2 summer schools.
Ontario.....	Degree from a recognized university.	Three summer courses, plus minimum of four months' business experience satisfactory to the Minister.	1 year at Ontario College of Education.
Quebec.....			Satisfactory experience as worker in commercial field.
New Brunswick.....		High School Graduation plus 1 year specialized training.	6 months.
Nova Scotia.....		Not established.	
Prince Edward Island.....		Not established.	

TABLE No. 12

Minimum Qualifications

VOCATIONAL TEACHERS (INDUSTRIAL) HIGH SCHOOL LEVEL 1948

Province	Academic	Trade Training and Experience	Professional Training	Salary compared with Academic Teachers
British Columbia.....	Grade XII, not necessarily Senior Matic.	Must have served apprenticeship plus 5 years in trade or business, and must be recommended by local Trade Advisory Committee and approved by Provincial Director of Vocational Education.	(1) <i>Temporary Vocational Certificate</i> for 1 year training approved. (2) <i>Conditional Vocational Certificate</i> —Committee recommend a specific course of training based on each individual case. (3) <i>Permanent Vocational Certificate</i> —Complete recommended training plus 5 years teaching experience.	Equal to Academic High School teacher with degree.
Alberta.....	Grade XII with matriculation into Faculty of Education.	(a) Possession of Journeyman's qualifications or (b) Two year course in a field of shop specialization plus three summers in industry (10 months minimum).	Lower than Academic High School teacher with degree. Specialist <i>Junior Certificate</i> One year's credit in six courses at Faculty of Education. (Teaching validity—Academic subjects in Grades VII-XI and Unit shop subject in field of specialization up to Grade XI. Specialist <i>Senior Certificate</i> —Either (a) or (b), with 2 years at Faculty of Education (Teaching validity—Academic and Shop to Grade XII).	
Saskatchewan.....	Grade XI	Five years' trade experience or its equivalent.	INTERIM VOCATIONAL CERTIFICATE PERMANENT VOCATIONAL CERTIFICATE	Same salary as Academic High School teachers.

JUNIOR TECHNICAL CERTIFICATE (TECHNICAL)

Manitoba.....	Grade XI	Must have completed apprenticeship.	One year.	Equal to Academic High School teachers.
Ontario.....	Grade XII or may write Ontario College of Education Entrance examinations in English, Mathematics and Science.	Must have— (1) Served apprenticeship; (2) Earned his living as journeyman at the trade for 5 years or more.	Eight months.	Equal to or above Academic High School Teacher with degree.
Quebec.....	Grade XI or XII.	Three years industrial experience.	Six months. Courses established and teachers take instruction in pedagogy. Professional requirements being raised.	Equal to Academic High School teachers.
New Brunswick.....	Grade XI	Three years trade experience (approved by Vocational Board).	Six months (Approved by Vocational Board).	Equal to Academic High School teacher with degree.
	Grade XI	<i>For small Composite High Schools—</i> Must have trade or farm background (approved by Vocational Board). 2,850 hours shop training.	150 hours Professional training.	Equal to Academic High School teacher with degree.
Nova Scotia.....	Grade XI—Must include Algebra, Geometry Physics, Chemistry.	Five years training and experience.	Six months.	Equal to Academic High School teacher with degree.
Prince Edward Island.....	Not established.			

TABLE No. 13

Minimum Qualifications Vocational Teachers (Home Economics) High School Level 1948

Province	Academic	Practical Experience or Training in Field of Home Economics	Professional Training
British Columbia.....	Home Economics not offered. <i>Cooking or Sewing</i> High School Graduation. Approved training on an industrial basis and the recommendation of the Provincial Director.	Five years apprenticeship, plus 5 years successful practical experience.	Prescribed teacher training.
Alberta.....	Grade XII. Senior Matriculation.	Either— (a) One year school of Home Economics (Faculty of Arts and Science, University of Alberta) (b) Two summer sessions (Faculty of Education) with credit in two courses in clothing or equivalent. No. trade experience required	2 years training at Faculty of Education.
Saskatchewan.....	Grade XII	Junior Technical Certificate (Home Economics Limited to High Schools employing not more than 5 teachers. Special courses in—foods and cookery, clothing and textiles, home management, principles and methods in Home Economics. No trade experience required.	First class teacher's certificate (one year).
Manitoba.....	University Entrance.; B.Sc. in Home Economics.	Trade experience desirable but not required.	One year, plus 2 summer schools.
Ontario.....	High School Graduation.	<i>Cooking</i> —Honor degree in Home Economics. No trade experience required. <i>Sewing</i> (Vocational)—Training associated with apprenticeship leading to custom and factory dressmaking and tailoring. Three to five years experience in trade of dressmaking followed by trade tests.	One year.
Quebec.....			
New Brunswick.....	High School Graduation plus one year specialized training.	Trade experience not required	Six months.
Nova Scotia.....	Not established.		
Prince Edward Island.	Not established.		

TABLE No. 14
Minimum Qualifications Vocational Agriculture Teachers. High School Local 1948

Province	Academic	Practical Experience or Training in Field of Agriculture	Professional Training
British Columbia.....	Junior Matriculation. Degree in Agriculture.	5 years experience on a farm.	15 units of prescribed teacher training.
Alberta.....	Matriculation into Faculty of Education. B.Sc. degree in Agriculture.	Assumed to be covered by B.Sc. degree.	High School Certificate or equivalent of one year in College of Education.
Saskatchewan.....	Not established.		
Manitoba.....	University Entrance. B.Sc. in Agriculture.	Desirable, but not required.	1 year plus 2 summer schools.
Ontario.....	High School Graduation.	Degree in Agriculture from Ontario Agricultural College, or Specialists' Certificate in Agriculture plus practical experience in farming, satisfactory to the Minister.	1 year.
Quebec.....			
New Brunswick.....	High School Graduation. B.Sc. in Agriculture.	Satisfactory experience as worker in Agriculture.	6 months.
Nova Scotia.....	Not established.....		
Prince Edward Island..	Not established.		

Vocational Teacher Training

The supply of adequately trained staff for vocational classes has been a problem in each of the provinces since the inception of vocational and technical education. It was a subject for discussion at three conferences—the first in Ottawa in 1920, the second at Calgary in April, 1925, and the third in Ottawa from February 9-11, 1927, also, the topic of a booklet published by the Department of Labour in February, 1924.

Proposals made in the '20's were that a central vocational teacher training institution be established for Canada. This, however, was not acted upon, and most of the provinces are developing their own vocational teacher training program. The following is a brief review of the work being conducted throughout the Dominion:

Nova Scotia

At present there is in Nova Scotia no organized program or facilities for training teachers specifically for vocational schools. Some educational institutions, however, offer courses which may be considered as part preparation for vocational teaching in its special sense.

The Provincial Normal College, Truro, Nova Scotia, in conjunction with its regular function of training teachers for the public schools, trains industrial arts and household arts teachers. The staff for this aspect of teaching is a special one. The course is normally completed in two regular terms.

The Nova Scotia Agricultural College, Truro, Nova Scotia, gives the first two years leading to the degree of Bachelor of Scientific Agriculture during the regular term. There is little or no pedagogical work given as such during those terms at the Nova Scotia Agricultural College.

The universities in Nova Scotia (Dalhousie, Halifax; Acadia, Wolfville; St. Francis Xavier, Antigonish) give courses in education for those who have a degree and intend to teach. They also give diploma courses (two-year) and degree courses (four-year) in household economics.

New Brunswick

Industrial teacher training is an integral part of the program at the New Brunswick Technical Institute at Moncton, under the guidance of the Provincial Vocational Education Board. The course is two years in length—each of ten months—with trainees spending $7\frac{1}{2}$ hours per day in classes. A special teacher training staff is maintained and supplemented by the regular instructors of the institute. The program of training is designed to develop the highest possible degree of skill in a diversity of trades, and a good background of professional training.

Professional courses are offered in teaching methods, curriculum building, administration, history of vocational education, psychology, guidance, academic electives and practice teaching.

Additional teacher training, over and above this two-year course, will be taken in American Universities, one of which has already granted approximately two years' credit for the provincial course.

Professional courses for tradesmen preparing to teach in vocational and composite schools are to be offered also.

Home economics' teacher training is given at the Saint John Vocational School under the guidance of the Provincial Vocational Education Board. The course is two years in length, each of 10 months, with the trainees spending 6 hours per day in class. The content of the course parallels the training course for industrial teachers. Advanced training in home economics is given in American Universities.

Commercial teacher training is not in operation in the Province of New Brunswick. The practice has been to have the graduates of the vocational schools or business colleges take advanced training in American universities in teaching and business practice.

Quebec

The Province of Quebec has, as yet, no special institution for the training of vocational teachers. However, they are employing several methods to make up for this deficiency.

In the fields of agriculture, commerce and domestic science, teachers (whether members of religious orders or lay teachers) with few exceptions, have had to take special teacher training courses. These courses are conducted in Normal schools, either attached to theological colleges or in the Government Normal schools. The teachers who wish to teach subjects belonging to vocational courses prepare themselves by specialized studies in the various faculties of the universities, or in the institutes or schools affiliated with the universities, commercial schools, agricultural schools, domestic science schools or institutes.

Sometimes, the process is reversed; the graduates of commercial, agricultural or domestic science schools wish to teach, and in order to be more efficient they

undertake to train as teachers. They then follow part-time courses in schools or institutes for the training of teachers, take up summer courses organized by the universities in the province and elsewhere, or register for correspondence courses.

With respect to schools leading to technical careers, their teaching staffs have always been selected with particular care. When the schools were first established, the services of teachers from France were solicited, but steps were soon taken to organize groups of Canadian teachers. Today, there are among the teaching staff of theoretical subjects, graduates of Engineering, Normal and specialized schools. Teachers of applied subjects are mostly chosen from widely experienced tradesmen or sufficiently educated former foremen. The majority, however, are graduates of specialized schools who acquired practical experience after graduating or have spent some time abroad. They are selected with great care. Through evening courses, improvement courses during their leisure time, or through a series of lectures organized for their benefit, these teachers acquire the additional pedagogical training necessary to carry out their duties.

These measures have up to now given satisfactory results. But the importance acquired in these last years by the schools of specialized training and the need of increasing the teaching staffs have prompted the authorities to launch organized and systematic action for the training of relieving staff and for the improvement of the teachers. Its organization has been entrusted to the General Director of Studies for specialized training and includes:

- (a) Study meetings in each school to discuss teaching memoranda issued by the General Director of Studies;
- (b) Correspondence courses in pedagogy and methods;
- (c) Scholarships improvement courses, Summer courses, correspondence courses organized by the universities and affiliated institutions;
- (d) Summer courses or series of lectures specially designed for teachers of specialized training;
- (e) A promotion system based on improvement courses attended by teachers;
- (f) Training of probationary teachers by the Correspondence Course Bureau

With respect to private vocational schools, the teaching staff is mostly recruited from the ranks of former workers or experienced foremen. These schools are supervised by an inspector attached to the General Administration of Studies for specialized training, who checks the curricula and class set-up.

Most of the means outlined above have already been applied with such appreciable results as to enable vocational training to play a leading part in the training of Quebec youth.

Ontario

I. General Organization

All teachers of vocational training must hold regular certificates issued by the Department of Education on courses which are taken either at the Ontario College of Education or in the summer schools provided by the Department of Education.

II. Teachers of industrial subjects including Shop Work, Commercial Art, Sewing and Dressmaking—

- (1) Interim Ordinary Vocational Certificates are granted after the one-year course at the Ontario College of Education under a special

vocational staff of instructors. The course consists of science of education, psychology, guidance, methods of teaching, together with observation and practice teaching in specialized classrooms of provincial schools.

- (2) Specialist Certificates are given on successful completion of two summer courses with special winter assignments. Only teachers with above-average rating are admitted to these courses.

III. Teachers of Commercial Subjects—

- (1) The Elementary Certificate is given as an optional course at the Ontario College of Education for teachers with credit in shorthand, typewriting and bookkeeping or in two summer school courses. The course is given under a special staff of highly-trained commercial teachers and includes, in addition to the skill subjects, methods of teaching the special commercial subjects.
- (2) The Intermediate Certificate given in one summer course includes the subjects of business law, business correspondence, business arithmetic and office practice.
- (3) The Specialist Certificate requires two summer courses with one extension course at the University of Toronto. The subjects include economics, history of commerce, arithmetic of investment or business machines, accountancy theory, accountancy practice or secretarial practice and methods in teaching.

NOTE.—University courses deemed equivalent may be accepted in lieu of all subjects except "methods".

IV. Teachers of Agriculture—

A teacher-training course is given at the Ontario College of Education to candidates who hold degrees from the Ontario Agricultural College. The special work in methods of teaching agriculture is given by the inspectors of agricultural classes, Department of Education.

V. Teachers of Home Economics—

A teacher-training course is given at the Ontario College of Education during the regular session to candidates who hold Honour Degrees in Home Economics. A special staff of home economics' instructors give the courses in "methods".

NOTE.—The successful candidates in both courses in agriculture and home economics are given High School Assistant's Certificates, Type A, which after two years of successful teaching may be exchanged for a Specialist Certificate in the subject concerned.

Manitoba

Teacher Training

1. *Industrial*—Summer school sessions according to the needs of each trainee, plus craft skills in industry, and evening classes.
2. *Commercial*—Two six-week summer courses beyond the usual permanent Teachers' Certificate.
3. *Agriculture*—Graduate of the Faculty of Agriculture, plus one year Faculty of Education, University of Manitoba.
4. *Home Economics*—Graduate of the Faculty of Home Economics, plus one year Faculty of Education, University of Manitoba.

Saskatchewan

Vocational teacher training in Saskatchewan is offered in the College of Education at Saskatoon, and in the University Summer School. The requirements for vocational certificates and junior technical certificates are given in Tables No. 11-14. Grade XII courses in commercial work, domestic science and industrial arts are recognized as qualifying a teacher for technical training requirements of the junior technical certificate. These courses in the collegiates, College of Education and summer school are offered by specially trained personnel.

The University offers a bachelor of education degree with a major (four subjects) in commercial work, or home economics, or industrial arts, or agriculture. Any classes taken in these subjects at the College of Education or in the summer school carry degree credit.

The twelve weeks in the teaching of vocational subjects, required for the vocational certificate, are offered in the College of Education, or may be taken at some other teacher training institution when approved by the Department.

Alberta

Teacher training in Alberta is offered in the Faculty of Education of the University of Alberta.

The training of industrial vocational teachers is undertaken cooperatively between the Faculty of Education and the Institute of Technology and Art at Calgary. The first three years of the course is offered at the institute and the final year of the bachelor of education program at the university. The program at the institute is designed to develop trade skills, give advanced training in academic options and cover a professional background in the industrial field. The university work of the fourth year completes the academic and professional training. Home economics, commercial and agricultural teacher training is also offered in the Faculty of Education in cooperation with the appropriate faculties of the university. Classes are held during the regular university year and at the summer school.

Candidates who hold journeymen's certificates from the Apprentice Board and matriculation standing may qualify for a high school certificate and a senior certificate in a unit shop subject by obtaining credit in a two-year program in the Faculty of Education.

Students who have completed the regular four-year program prescribed for bachelor of education in industrial arts may qualify for a senior certificate in a unit shop subject by obtaining $3\frac{1}{2}$ credits in the field of specialization.

British Columbia

General Organization

Vocational teachers must show that they have at least completed an apprenticeship and spent 5 years at their trade. A temporary Vocational Teacher's Certificate is then issued to them, good for one year.

Courses of training are outlined for each individual according to their background and needs. Training can be taken by:—

1. Attending our Summer School of Education operated by the Department of Education.
2. Attending lectures in the University of British Columbia.
3. Taking correspondence courses (Department of Education).

4. Attending Normal School.
5. Attending the Vocational teacher training unit of the Vancouver Vocational Institute.

Courses include:

Teaching methods, psychology, administration, supervision, guidance, history of education, educational philosophy, tests and measurements, school management, curriculum construction, visual education.

ADVISORY COMMITTEES

The objective of vocational education is to prepare the trainee for gainful employment either in primary or secondary industries.

The planning for vocational programs should be done in terms of specific situations which may differ from those faced by administrators working in other localities.

The following steps seem to be necessary in planning a vocational program:

1. Creating representative vocational advisory committees.
2. Making occupational surveys to determine needs.
3. Making surveys of present educational facilities in the field.
4. Determining desirable program patterns.
5. Making occupational analyses to determine curriculum content.
6. Constructing the curricula.
7. Determining plant and equipment needs.
8. Setting up standards for personnel.
9. Obtaining needed financial support.
10. Securing the personnel.
11. Publicizing the program.

The order in which steps are taken may vary considerably from that shown above. However, effective planning requires the efforts of all those concerned with and affected by the program.

Persons having a share in planning a program are usually its strong supporters. It is at this step that vocational advisory committees are particularly important. Their membership should be carefully selected from the geographic area each program will serve. Representation should be given to industrial, educational, civic and other interested groups, for all have a stake in any program of a vocational nature. When once appointed they should be given responsibilities and should function in an active way and not as a mere figurehead.

Such advisory committees are a requirement in all vocational schools in Nova Scotia, New Brunswick, Ontario and British Columbia, where they have contributed much to the successful development and operation of the vocational program. They have promoted the close liaison between the schools and the industries they serve, and assisted in the placement of students. The experience of Canadian vocational training programs for war emergency and veterans' rehabilitation also gave ample evidence of the importance and value of advisory committees. They assisted in the preparation of functional programs and ensured that the programs were designed to meet the needs of industry as well as of the trainees who were preparing to enter gainful employment. They also developed an interest on the part of industry in the product of the schools.

Where use is being made of local advisory committees in Canadian schools, the programs are better, more clear cut and related more closely to the industries they serve. The schools are kept informed on the demands for workers, changes in industrial processes and occupational techniques.

The following chart gives the use being made of vocational advisory committees in Canadian schools, as reported by the principals or directors of schools:

—	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
Number of schools reporting.....	1	6	12	†	49	8	3	8	37
Organized Advisory Committees:									
None at present.....	1		5			8		5	6
One for the school.....		6	6		49		3	3	16
One for each trade.....			1						15
Committees representative of:									
Management.....		6	7		49		2		37
Labour.....		6	7		49		2		37
Education.....		6	7		49		2	3	37
Reported value of Committees:									
Very important.....		3	3		38		2		20
Some value.....		2	3		11		1	3	26
Not much.....		1	1						1
Duties of Committees:									
Planning school program.....			7		49		2		36
Placement.....			1				1		21
Advisory only.....		6						3	1

* Numbers refer to Vocational Evening Schools.

† No Report.

ENROLMENTS—TOTALS AND CLASSIFICATIONS

There is no uniform basis of classifying or reporting student enrolment in the different provinces. Students classified as vocational in one area may not be considered vocational in another. The following enrolments are approximate with very few duplications, and are the figures supplied by the Provincial Departments of Education.

TABLE No. 15
Enrolments in Vocational Classes—1947-1948

	DAY										EVENING						
	P.E.I.	N.S.	N.B.	Que.*	Ont.	Man.	Sask.	Alta.	B.C.	P.E.I.	N.S.	N.B.	Que.*	Ont.	Man.	Sask.	Alta.	B.C.
Commercial.....	88	130	965	10,633	277	2,481	1,087	1,956	680	484	.....	8,803	302	615	.....	1,664	
Industrial.....	46	105	517	14,366	244	1,293	1,143	1,538	1,219	401	.....	20,070	1,207	737	650	2,090	
Agriculture.....	.....	.....	117	63	340	18	.....	.....	1,916	545	.....	71	434	385	.....	.....
Home Economics.....	.....	.....	165	6	356	210	.....	.....	350	50	.....	9,862	.....	.....	.....	.....
Service Occupation.....	.....	.....	40	40	125	84	.....	.....	.....	.....	.....	4,419	.....	.....	16	299	
Other.....	.....	.....	.....	920	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	134	235	1,764	29,026	527	4,255	2,864	3,512	4,165	1,480	.....	43,225	1,943	1,737	666	4,053	

* No Report

TABLE No. 16
Number of Vocational Teachers—1947-1948

	DAY†										EVENING							
	P.E.I.	N.S.	N.B.	Que.*	Ont.	Man.	Sask.	Alta.	B.C.	P.E.I.	N.S.	N.B.	Que.*	Ont.	Man.	Sask.	Alta.	B.C.
Commercial.....	3	.....	42	.....	.....	19	58	28	155	34	18	.....	.....	8	19	1	59	
Industrial.....	5	.....	53	.....	.....	16	42	66	119	82	19	.....	.....	48	28	22	74	
Agriculture.....	.....	.....	5	.....	.....	1	1	28	5	.....	.....	.....	.....	9	11	.....	2	
Home Economics.....	.....	.....	21	.....	.....	1	7	17	.....	78	23	.....	.....	.....	.....	.....	.....
Service Occupation.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18	2	.....	3	6	5	
Other.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total*.....	8	.....	121	1,575	36	108	147	279	.....	212	62	.....	1,529	65	61	29	140	

† Totals include full time and part time instructors in day classes.

* No Report

TABLE No. 17
Salary Range
Vocational Teachers in Day Schools as at June 30, 1948

Province	Principals	Heads	Teachers of Vocational Subjects
		of Departments	
		\$	\$
British Columbia.....	3,900—4,800	1,950—4,200	1,600—4,000
Alberta.....	3,300—5,200	2,700—4,200	1,700—3,900
Saskatchewan.....	4,200—4,800	2,200—4,400	2,000—3,800
Manitoba.....	—	—	1,800—3,800
Ontario.....	4,100—5,300	2,950—4,400	1,950—4,200
Quebec.....	Technical and Specialized Schools 4,000—6,000 Arts and Trades Schools 3,000—4,600	2,100—4,500	1,800—3,600
New Brunswick.....	3,000—4,800	1,700—4,000	1,400—3,600
Nova Scotia.....	—	—	—
Prince Edward Island.....	2,500	—	1,600—1,800

NOTE:—Salary scales in Quebec are under revision by the Civil Service Commission, and it is expected they will be raised.

TABLE No. 18
Salary Range
Evening Class per 2-hour session as at June, 1948

Province	Principals of Schools (per season)	Instructors
	\$	\$
British Columbia.....	—	5.00—9.00
Alberta.....	—	5.00
Saskatchewan.....	—	4.50—5.00
Manitoba.....	—	5.00
Ontario.....	240.00—800.00	4.00—10.00
Quebec.....	200.00—500.00	5.00—10.00
New Brunswick.....	—	3.00—4.00
Nova Scotia.....	—	4.60
Prince Edward Island.....	No evening classes	

BURSARIES OR FINANCIAL AID TO VOCATIONAL SCHOOL STUDENTS OR VOCATIONAL TEACHERS-IN-TRAINING

In recent years a number of the provinces have established bursaries or financial aid to vocational students of adequate ability who, through lack of funds, were unable to complete their formal education. In four provinces bursaries have also been made available to vocational teachers-in-training. These bursaries are shareable on a 50-50 basis with the Dominion Government, under the Vocational Schools' Assistance Agreement.

New Brunswick

In New Brunswick, the financial aid takes the form of tuition rebates for non-resident student who attend one of the schools teaching vocational work. Rebates are made in all high school grades. Assistance is given to vocational teachers-in-training to attend schools either in the province or other parts of Canada or the United States.

Quebec

Bursaries are made available at high school level to students with ability who wish to attend one of the arts and trades technical or specialized schools. In general, these bursaries are intended to enable students from outlying areas to attend the schools at the centres where they have been established. Vocational teachers are given financial assistance to attend recognized teacher training schools in Canada or the United States.

Ontario

Ontario awards bursaries of either type "A", a fixed amount; or type "B", an award of fixed maximum but with no fixed minimum. Type "A" may be awarded to vocational students in Grade XII, on the basis of scholarship and need, with a definite number allocated to each county. Type "B" awards are to students at provincial technical institutes, and a limited number to vocational teachers-in-training.

Manitoba

Technical education bursaries are awarded by a Provincial Board to technical high school students on the basis of scholastic record and financial need. The awards may be made in all three years of the high school program.

Saskatchewan

Saskatchewan awards a non-resident grant to high school students attending vocational schools, also bursaries to vocational teachers-in-training.

British Columbia

Assistance is awarded vocational students on the basis of 60% bursary and 40% loan.

Table 19 gives the data in regard to provincial expenditures on vocational students' and teachers' bursaries; also, the amount spent by the provinces in this work.

TABLE No. 19
Bursaries or Financial Aid

(a) To Vocational or Technical School Students

	P.E.I. 1947-48	N.S. 1947-48	N.B. 1947-48	Que. 1948-49	Ont. 1947-48	Man. 1947	Sask. 1947-48	Alta. 1947-48	B.C. 1947-48
Number of Vocational or Technical Students.....	1		521	1,555	50	9			5
Amount of Bursaries or Student Aid.....	\$200 00	\$15,749 64	\$198,200 00	\$5,125 00	\$723 50	\$8,743 17			\$900 00

(b) To Vocational Teachers in Training

		22	35	2	Nil	82		Nil
Number of Teachers.....	.....						
Amount of Bursaries or Student Aid.....	.....	\$8,548 00	\$5,880 00	\$250 00	Nil	\$4,100 00		Nil

Manitoba has appropriated \$15,000 for Technical Education bursaries for the school year 1948-49—which may be awarded to students in Grades X, XI or XII.

CANADIAN VOCATIONAL CORRESPONDENCE COURSES

The correspondence-study method of instruction has a definite place in any comprehensive system of education. Its function is to carry the benefits of education to those who, for social, economic or geographical reasons, are unable to attend organized classes and, also, to provide a curriculum broad enough to meet the needs of sparsely populated areas where, due to excessive costs, it would be impractical to establish classes.

This method of instruction in vocational courses is being used in a number of the provinces, although the devices used differ greatly. As far back as 1916, Nova Scotia and Alberta prepared courses and gave instruction by mail to a limited extent. Since that time, the Correspondence Branch in Nova Scotia has expanded and now offers vocational correspondence courses at a nominal fee in 45 different subjects. Alberta has developed courses in steam and mining engineering and surveying that are widely used across Canada. In Manitoba and Saskatchewan, where no courses have been developed, arrangements have been made whereby the courses from commercial correspondence schools are available to students at a reduced cost. Quebec has been faced with a further problem in that textbooks and correspondence courses on technical subjects prepared on this continent are not written in the French language. To meet this situation, they established, in November, 1946, an office of Correspondence Studies and are preparing texts and correspondence courses in French. In British Columbia, the Correspondence Instruction Department is well established and has prepared vocational courses in 37 subjects.

In spite of the work that has been done, there are several fields in which comprehensive Canadian Vocational Correspondence Courses have not been prepared. The high cost of preparing such courses has been a deterring factor, and to have such courses prepared in each province represented a great amount of duplication. To overcome some of the problems, a co-operative plan has been worked out under the auspices of the Canadian Education Association and Canadian Vocational Training, whereby the Provincial Departments of Education have undertaken to prepare a number of vocational correspondence courses co-operatively. Each province has agreed to write one or more courses and make them available to all provinces. Further, those provinces which have already prepared courses have agreed to make them available to the Departments of Education in all provinces at cost, and Quebec has offered to supply and service any of their courses to French speaking students anywhere in Canada, on the same terms as to residents of Quebec.

At present, courses are in the process of preparation in boat building (30-100 ft.), auto mechanics (advanced), building construction, plumbing and steam-fitting, machine shop, radio (advanced), bricklaying, plastering, electrical construction for the building trades, welding, farm mechanics, accountancy, mechanical drawing (advanced). It is planned that these courses will be suitable for apprentices who wish to supplement class training, or for workers who require further technical knowledge in their specialized field. These courses will be made available, when completed, through the Departments of Education in each province. The courses in the following list, which have already been prepared by Nova Scotia, Quebec, Alberta and British Columbia, may also be obtained in the same manner. It is to be noted that two methods have been employed in writing vocational correspondence courses. The majority of the Nova Scotia courses are based upon a recognized textbook in the field, whereas the British Columbia and Alberta courses are self-contained.

Nova Scotia Courses

Gas and Oil Engines, Gasoline Automobiles, Building Construction, Heating and Ventilating, Plumbing, Advertising, Bookkeeping and Accounting (Elementary I and II), Business Arithmetic, Business Correspondence, Business English and Correspondence, Commercial Law, Salesmanship (General), Salesmanship (Retail), Shorthand (Gregg), Shorthand (Pitman), Show Card Writing, Diesel Engineering, Advanced Electricity I and II, Industrial Electricity, Practical Electricity, Storage Batteries, Telephony (8 courses), Elements of Mechanics, Engineering Thermodynamics, Practical Mechanics, Advanced Shop Mathematics, Elementary Mathematics, Architectural Drawing, Blueprint Reading, Drafting, Machine Design (Elementary), Machine Drawing, Sheet Metal Drafting, Structural Steel Drafting, Plane Surveying, Elementary Navigation, Principles of Radio Servicing, Steam Engineering (Fourth Class), Steam Boilers, Steam Turbines, Elementary Naval Navigation, Steel Ship Construction, Welding—Oxyacetylene.

Quebec Courses

Arithmetic (Applied to Industry), Algebra (Applied to Industry), Blueprint Reading, Lettering (Mechanical Drawing), Shop Drawing, Elements of Mechanical Drawing, Dimensioned Sketch, Elements of Forging, Overhauling and Tuning of Automobile Engines, Industrial Materials, Diesel Motor, Machine Parts, Elements of Foundry, Elements of Carpentry, Elements of Pattern-making, Electricity.

Alberta Courses

Practical Mathematics, Mine Surveying, Mining (1st, 2nd and 3rd class), Steam Engineering (1st, 2nd, 3rd and 4th Class).

British Columbia Courses

Agriculture I and II, Fruit Growing, Poultry Keeping, Senior Matriculation Agriculture, Soil and Field Crops, Automotive Engineering I and II, Building Construction, House Painting and Decorating, Sheet Metal Work, Bookkeeping I and II, Business Arithmetic, Business English and Correspondence, Secretarial Practice, Shorthand (Pitman), Typewriting I and II, Diesel Engineering, Practical Electricity, Industrial Mathematics, Spherical Trigonometry, Mechanical Drawing, Elementary Geology and Mineralogy, Metal Mining, Air Navigation I and II, Principles of Radio I and II, Steam Engineering (2nd, 3rd and 4th Class), Mathematics for Second Class Steam, Commercial Art, Forestry.

APPENDIX "A"

CHAP. 34

An Act respecting the carrying on and co-ordination of Vocational Training.

[Assented to 1st August, 1942.]

THIS Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:—

1. This Act may be cited as *The Vocational Training Co-ordination Act, 1942*. Short title.

2. In this Act, unless the context otherwise requires,

Definitions,

- (a) "Council" means the Vocational Training Advisory Council "Council" appointed under this Act;
- (b) "Minister" means the Minister of Labour; "Minister."
- (c) "vocational training" means any form of instruction the purpose of which is to fit any person for gainful employment or to increase his skill or efficiency therein, and without restricting the generality of the foregoing, includes instruction to fit any person for employment in agriculture, forestry, mining, fishing, construction, manufacturing, commerce or in any other primary or secondary industry in Canada.

3. (1) The Minister may undertake projects to provide vocational training Minister may under-take projects. 1940, c. 44.

- (a) to fit persons for employment for any purpose contributing to the efficient prosecution of the war whether in industry or in the armed forces;
- (b) to fit for any gainful employment former members of His Majesty's Canadian Forces or former members of any of His Majesty's Forces who were at the time of enlistment domiciled in Canada or any other persons with respect to whom authority for the granting of vocational training is vested in the Minister of Pensions and National Health, if such former members or other persons are approved for such training by such Minister;
- (c) to fit for any gainful employment persons directed by the Unemployment Insurance Commission to attend a course of training pursuant to section twenty-eight of *The Unemployment Insurance Act, 1940*; and
- (d) to fit persons for employment for any purpose contributing to the conservation or development of the natural resources vested in the Crown in the right of Canada.

Research
work.

(2) The Minister may undertake and direct research work pertaining to vocational training and may undertake the dissemination of information relating to such training.

Agreements
with
provinces.
1939, c. 35.

4. (1) The Minister may, with the approval of the Governor in Council, enter into an agreement covering any period with any province to provide financial assistance for

- (a) any project, undertaken in the province, to provide vocational training for any of the purposes set out in section three of this Act;
- (b) the continuation after March thirty-first, 1942, of any project for training heretofore carried on in the province under *The Youth Training Act, 1939*;
- (c) any vocational training project for the conservation or development of the natural resources vested in the Crown in the right of the province;
- (d) the development and carrying on by the province of any project recommended by the Council to provide vocational training for apprentices or supervisors in any industry; and
- (e) the development and carrying on after the present war of vocational training on a level equivalent to secondary school level.

Percentage
of cost.

(2) No agreement made in respect of any of the matters set out in paragraphs (b) to (e), both inclusive, of subsection one of this section, shall provide for payment to the province of a percentage of the cost of any vocational training project, including the cost of the training facilities, in excess of the percentage of such cost contributed by the province.

THE VOCATIONAL TRAINING ADVISORY COUNCIL

Council.

5. There shall be appointed by the Governor in Council a council to be called "The Vocational Training Advisory Council."

Chairman
and
members.

6. (1) The Council shall consist of a Chairman and not more than sixteen members.

Tenure of
office.

(2) The Chairman and other members of the Council shall hold office for a period of three years except in the case of the members first appointed and of any member appointed to a casual vacancy, who shall hold office for such period, not exceeding three years, as may be determined by the Governor in Council.

Composition
of Council.

(3) There shall be equal numbers of members on the Council specially representative of employers and of employees, and the remainder of the members may be representative of such other groups of persons or interests as the Governor in Council may determine.

Quorum.

(4) A majority of the members shall form a quorum for any meeting of the Council.

(5) The Council may act notwithstanding any vacancy in its membership, provided that the membership is not fewer than ten members.

(6) The Council may make rules for regulating its proceedings and the performance of its functions and may provide therein for the delegation of any of its duties to any special or standing committees of its members.

(7) The Minister may provide the Council with such professional, technical, secretarial and other assistance as the Council may require but the provision of such assistance otherwise than from the public service of Canada shall be subject to authorization by the Governor in Council.

(8) The Minister shall make available to the Council such information as the Council may reasonably require for the proper discharge of its functions under this Act.

(9) The members of the Council shall serve without salary but each member shall receive his actual travelling expenses which have been incurred with the approval of the Minister in connection with the work of the Council and a per diem allowance of ten dollars for each day he is necessarily absent from his home in connection with such work.

7. The Minister may from time to time refer to the Council for consideration and advice such questions relating to the operation of this Act as he thinks fit and the Council shall investigate and report thereon to the Minister, and shall make such recommendations as the Council sees fit in connection therewith.

GENERAL

8. This Act shall be administered by the Minister of Labour. Administration.

9. A supervisor of training and such officers, clerks and other employees necessary for the administration of this Act shall be appointed in the manner authorized by law.

10. The Governor in Council may make regulations for the purpose of giving effect to this Act.

11. The Minister shall as soon as possible, but in any case within sixty days after the termination of each fiscal year, prepare an annual report on the work done, moneys expended and obligations contracted under this Act and shall upon completion thereof lay such report before Parliament if Parliament is then sitting or if Parliament is not then sitting, within fifteen days after Parliament is next assembled.

Expenditures and appropriations. 12. Expenditures incurred under this Act shall be paid out of moneys appropriated by Parliament for carrying out the purposes of this Act.

Repeal. 13. *The Vocational Education Act, 1931*, chapter fifty-nine of the statutes of 1931, is repealed.

Coming into force. 14. This Act shall be deemed to have come into force on the first day of April, 1942.

APPENDIX "B"

VOCATIONAL SCHOOLS' ASSISTANCE AGREEMENT

THIS AGREEMENT made this..... day of..... A.D.
BETWEEN:

THE GOVERNMENT OF CANADA (hereinafter called the Dominion)

OF THE FIRST PART

AND

THE GOVERNMENT OF THE PROVINCE OF
(Hereinafter called the Province)

OF THE SECOND PART

THIS AGREEMENT is entered into on behalf of the Government of Canada by the Minister of Labour and on behalf of the Government of the Province of..... of that Province.

WHEREAS the Vocational Training Co-ordination Act, 1942 authorizes the Minister of Labour, subject to the approval of His Excellency the Governor General in Council, to enter into an agreement with any province to provide financial assistance to a percentage not in excess of the percentage contributed by the province for the development and carrying on after the present war of Vocational Training on a level equivalent to secondary school level;

AND WHEREAS His Excellency the Governor General in Council, by P.C. 1648, of March 8th, 1945 and under the authority of the War Measures Act has authorized the Minister of Labour, notwithstanding the provisions of Subsection two of Section four of The Vocational Training Co-ordination Act, 1942, to enter into such agreement;

AND WHEREAS moneys have been allocated for such purpose by the Parliament of Canada;

Now THEREFORE, it is agreed by and between the parties hereto as follows:

1. In this Agreement unless the context otherwise requires:

- (a) the expression "Minister" means the Minister of Labour of Canada and includes any person designated from time to time by the Minister to act for him under this agreement;
- (b) the expression "Vocational Training" has the same content as in The Vocational Training Co-ordination Act;
- (c) the expression "Capital Expenditures" means expenditure for new buildings, additions to or alterations of existing buildings, non-expendable items of machinery and equipment.

2. The following shall not be included in any project submitted by the Province for Dominion contribution under this Agreement:

- (a) Vocational courses in Grade 9 or in lower grades, unless in Grade 9, 50 per cent of the school time is spent in Vocational subjects and related subjects such as science, drafting, mathematics, etc.

(b) Vocational courses of university grade but not to the exclusion of technical courses, which are below the professional level, but where instruction may be given beyond the usual matriculation standard (i.e. Provincial Technical Institutes).

(c) Manual Training or other pre-vocational courses of a general educational nature.

3. Subject to the terms and conditions contained in this Agreement or in any appendix or schedule thereof, the Dominion will pay to the Province the following amounts for Vocational Training:

(a) An annual grant of \$10,000 for each Dominion fiscal year ending March 31st during the term of this Agreement.

(b) An annual grant for each Dominion fiscal year ending March 31st during the term of this Agreement, equal to an amount subscribed by the Province for similar purposes, but not exceeding an amount that is that proportion of \$1,910,000, which the number of people in the Province of the ages 15 to 19 inclusive, as shown in the last Dominion decennial census, bears to the number of people in all nine provinces of the said ages as shown in the said census; which amount shall be \$..... for the fiscal year ending March 31st, 1946 and a like amount for each succeeding fiscal year until the results of the next Dominion decennial census shall have been tabulated.

(c) A grant for Capital Expenditures to be made by the Province between April 1st, 1945 and March 31st, 1948, equal to an amount subscribed by the Province for similar purposes but not exceeding an amount that is that proportion of \$10,000,000 which the number of people in the Province of the ages 15 to 19 years inclusive, as shown in the last Dominion decennial census, bears to the number of people in all nine provinces of the said ages as shown in the said census; which amount during the above named three year period shall be \$....., of which sum, 3/10ths shall be allocated for the fiscal year ending March 31st, 1946 with the unexpended balance allocated between the two next succeeding fiscal years as may be agreed on between the Province and the Minister. Of the gross amount of the Dominion grant to the Province for Capital Expenditures at least 25 per cent shall be used for Vocational Equipment.

4. The maximum grants payable under Clause 3 (a) and (b) above in respect to any year shall be increased by the difference between the maximum amount payable from the aforesaid grants in respect to the previous year for capital expenditures (see Clause 5) and the amount actually paid in respect to the previous year for capital expenditures.

5. per cent of the annual grants payable under Clause 3 (a) and/or (b) may be used for Capital Expenditures in the fiscal year 1945-46 and, in each of the ensuing fiscal years covered by this Agreement, such percentage as the Province shall determine subject to the Province notifying the Minister prior to April 1st in each year what the said percentage shall be.

6. The grants under Clause 3 (a) and (b) at the direction of the Province, may be used for any of the purposes set forth in Clause 11.

7. Any buildings and equipment toward the cost of which the Dominion has made a grant under terms of Clause 3 (c), shall be made available until March 31st, 1948 for the rehabilitation and training of war veterans and workers released from industries if so required by the Minister and, until such time, such use of the said buildings and equipment shall have priority over other uses.

8. It is understood and agreed between the parties hereto that neither the execution of this Agreement, nor anything contained herein, nor the expenditure of any funds hereunder by the Government of Canada shall be deemed to confer upon the Minister or any officer or department of the Government of Canada, any right of supervision or control over any school or educational institution, either provincial or municipal, with respect to which any funds are expended under this Agreement, nor any supervision or control over the administrative or teaching personnel or the curriculum of instruction or the methods of instruction or the materials of instruction of any such school or educational institution.

9. Grants made by the Dominion under this Agreement may be used in, or in respect to publicly owned Vocational Schools but not in schools operated, owned or controlled by private corporations or individuals. Where a province recognizes as part of its educational system schools owned and operated by religious bodies, and assists such schools financially, such schools may, at the discretion of the Province and subject to the clauses of this Agreement, participate in Dominion contributions for operating costs from the grant set forth in Clause 3 (b) but not for Capital Expenditures under Clause 3 (c).

10. No part of the Dominion grant shall be used for any of the following purposes;

- (a) purchase or rental of land
- (b) salaries of caretaking staff
- (c) office or secretarial help and office supplies in vocational schools
- (d) taxes, insurance, licence fees, permits
- (e) legal, advisory or consulting fees and salaries, except architects' fees
- (f) overhead expenses added to the cost of materials supplied from provincial or municipal stores.
- (g) telephone or telegraph charges
- (h) damages or costs resulting from injury to persons
- (i) damages or costs resulting from real property or from injury to or loss of personal property

11. Grants made by the Dominion under this Agreement may be used at the discretion of the Province to meet costs incurred for any of the following purposes in developing or carrying on Vocational Training:

- (a) Purchase or creation of buildings, additions to or alterations of existing buildings subject to Regulation 7 and Regulation 12.
- (b) Non-expendable items of machinery and equipment subject to Regulation 7.
- (c) Expendable items of equipment, hand tools, vocational materials and supplies including Technical and Vocational books, magazines for Vocational classes.
- (d) Salaries and travelling expenses of provincial administrative and supervisory vocational staff.
- (e) Salaries of vocational teachers and principals and supervisors in schools pro-rated according to the percentage of their time actually spent in vocational instruction or supervision.
- (f) Vocational counselling and guidance in vocational schools.
- (g) Light, Heat, Power and Water in vocational schools.
- (h) Maintenance and repair of plants and equipment used for Vocational Training purposes.
- (i) Training of vocational school teachers (to include only items in Regulation 11).
- (j) Preparation and maintenance of Vocational Correspondence Courses.
- (k) Bursaries for students attending vocational schools.

12. Where new buildings are erected under this Agreement, plans of all such projects shall be forwarded to the Dominion Director of Training as a matter of record and information, but such plans shall not require Dominion approval. They shall be certified by the appropriate Provincial officer as being approved by the Province.

Where a building is purchased or erected of a composite nature (used in part for vocational and in part for academic or other training) the proportion of the cost of such building, eligible for Dominion contribution under the Agreement, shall be determined pro-rate to the area of instructional floor space used for vocational training purposes as set out in Clause 2. Space used for school administration and general purposes, such as, auditorium, gymnasium, cafeteria, washrooms, etc., shall be pro-rated in the same proportions; as shall be costs for light, heat and other items of general expense set forth in Clause 11.

13. Subject to the terms and conditions herein set forth, the Province shall submit to the Dominion the projects to which it desires Dominion contribution, stating the nature and purpose of the project, the method by which it will be operated or carried out, details of the expenditures involved, and any other information required. The Minister shall have the right to reject any particular project, but shall have no authority to impose alterations or amendments to any projects submitted and approved by the Province. It is understood and agreed between the parties concerned that the Province will not include in such projects, nor claim Dominion contribution on any buildings, equipment, or other items purchased or services rendered prior to April 1st, 1945 nor on any buildings erected prior to that date but for any of which expenditures must be made by the Province subsequent to that date such as interest or debenture charges.

14. Subject to the conditions contained in Clauses 1 and 2, projects submitted under Clause 13 may include full-time or part-time vocational classes, held at any hour of the day or time of the year, and correspondence courses.

15. In addition to the Submission of Projects (Clause 13), the Province shall send to the Minister reports on the work accomplished under this Agreement at such times and in such form as may be mutually agreed.

16. Whenever any question arises as to the liability of the Dominion to contribute to any expenditure certified as having been incurred pursuant to the terms of this Agreement, the decision of the Minister in respect thereto, shall be final and conclusive, after consultation with the Province.

17. The Province will expend all moneys received from the Minister pursuant to the provisions of this Agreement, solely for the purposes of carrying out such training aforesaid, and all disbursements shall be made in legal tender or by cheque or other instrument drawn on a chartered bank.

18. The Province will maintain full records of all expenditures and commitments made in respect of this Agreement, such records to be segregated from, although reconciled with, continuing books of accounts of the Province, and will furnish such information and produce such records, documents and files, directly or indirectly connected with the operation of this Agreement, as the Minister may deem necessary to permit full examination and audit of the rendered account.

19. The Province will, if possible, within 30 days, but in any event not later than 120 days after the last day of the month in which any expenditures pursuant to this Agreement have been made, submit claims to the Treasury Officer, acting on behalf of the Minister, for payment of any costs incurred by the Province pursuant to this Agreement. No claim submitted later than 120 days after the last day of the month in which the expenditures in respect of which such claim is submitted were incurred, shall be paid by the Minister unless, in the special circumstances of a particular claim, such time is extended by the Minister.

20. Statements of accounts for expenditures made by the Province when submitted to the Minister, pursuant to the provisions of this Agreement, shall be accompanied by a certificate of the provincial auditor and shall be in such form as the Minister may from time to time direct.

21. The Minister may, at any time after consultation with the Province, direct any examination in connection with any measures executed or being executed pursuant to this Agreement and the Province will facilitate, as fully as it can, every such examination.

22. This Agreement shall be effective on and after April 1, 1945 and shall expire on March 31, 1955 subject to prior termination on six months' notice by either party.

SIGNED on behalf of the Government of Canada by.....
....., Minister of Labour.....

IN THE PRESENCE OF
and

SIGNED on behalf of the Government of the Province of
..... by

Minister of

IN THE PRESENCE OF

APPENDIX "C"

VOCATIONAL SCHOOLS' ASSISTANCE AGREEMENT

PROVINCE OF DATED

The undenoted amendments to this Agreement are agreed to by the Province and the Dominion effective from this day of 1947.

(1) The following shall be added to the present Clause 3 (c) "not notwithstanding the above paragraph it is further provided that where the Minister of Labour has approved prior to April 1, 1948, financial contribution by the Dominion to the Province for capital expenditures pursuant to this clause either (a) with respect to a project for the erection or extension of a vocational school building and a firm contract for such erection or extension has been entered into by the province or a municipality and work thereunder commenced prior to April 1, 1948, or (b) with respect to a project to purchase vocational training equipment and, the order therefor has been placed by the province or a municipality prior to April 1, 1948, the Dominion will, subject to the other terms and conditions of the Agreement, contribute financially thereto up to an amount equal to the expenditures incurred by the province in respect of such approved project prior to April 1, 1949, but not exceeding in any event the maximum contribution which is specified in this clause."

(2) Clause 7 of the present agreement shall be deleted and the following substituted therefor "any buildings and equipment toward the cost of which the Dominion has made a grant under the terms of Clause 3 (c) of this Agreement shall be available during the term of the Agreement for the rehabilitation and training of war veterans and workers released from industries, if required by the Minister, and, until March 31, 1949, such use of the said buildings and equipment shall have priority over other uses."

SIGNED on behalf of the Government of Canada by Minister of Labour.

IN THE PRESENCE OF
and

SIGNED on behalf of the Government of the Province of by
Minister of

IN THE PRESENCE OF

VOCATIONAL SCHOOLS' ASSISTANCE AGREEMENT

PROVINCE OF DATED

The undenoted amendment to this Agreement is agreed to by the Province and the Dominion, effective from this day of 1948.

The first section of the amendment mutually approved by the Province and the Dominion on the day of 1947, is cancelled, and the following is substituted therefor:

The following shall be added to the present Clause 3(c):

"Notwithstanding the above paragraph (Clause 3 (c) it is further provided that where the Minister of Labour has approved prior to April 1, 1948, a financial contribution by the Dominion to the Province for capital expenditures pursuant to paragraph (c) of section three of the agreement, either (a) with respect to a project for the erection or extension of a vocational school building or (b) with respect to a project to purchase vocational training equipment, the Dominion will, subject to the other terms and conditions of the agreement, contribute thereto up to an amount equal to the expenditures incurred by the Province in respect of such approved project prior to April 1, 1952, but not exceeding in any event the maximum contribution which is specified in the said paragraph (c) of section three of the said agreement."

SIGNED on behalf of the Government of Canada by Minister of Labour.

IN THE PRESENCE OF

and

SIGNED on behalf of the Government of the Province of by
Minister of

IN THE PRESENCE OF

APPENDIX "D"

PROVINCIAL OFFICIALS

Prince Edward Island

Minister of Education—Hon. J. Walter Jones
 Deputy Minister of Education—Dr. L. W. Shaw

Nova Scotia

Minister of Education—Hon. A. L. Macdonald
 Director of Vocational Education—E. K. Ford

New Brunswick

Minister of Education—Hon. J. L. Brittain
 Director of Educational Services—F. E. MacDiarmid
 Director of Vocational Education—W. K. Tibert

Quebec

Minister of Youth and Social Welfare—Hon. J. M. P. Sauve
 Deputy Minister of Youth and Social Welfare—Gustave Poisson, K.C
 Director-General of Studies—Jean Delorme

Ontario

Minister of Education—Hon. Dana Porter
 Deputy Minister of Education—Dr. F. S. Rutherford
 Director of Vocational Education—L. S. Beattie

Manitoba

Minister of Education—Hon. C. Rhodes Smith
 Deputy Minister of Education—Dr. R. O. McFarlane
 Inspector of Technical Schools—L. S. Smith

Saskatchewan

Minister of Education—Hon. Woodrow Lloyd
 Deputy Minister of Education—A. McCallum
 Supervisor of Technical Education—J. A. Doyle

Alberta

Minister of Education—Hon. Ivan Casey
 Deputy Minister of Education—Dr. W. H. Swift

British Columbia

Minister of Education—Hon. W. T. Straith
 Deputy Minister of Education—Dr. F. T. Fairey
 Director of Technical Education—Harry A. Jones.

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